



DRAFT

ENVIRONMENTAL IMPACT REPORT

DEIR

# Whole Foods at 2675 Geary Boulevard Project

San Francisco Planning  
Case No. **2019-004110ENV-02**

State Clearinghouse No. 2022060505

Public Draft	Draft EIR Publication Date:	December 14, 2022	Written comments should be sent to:  <b>Rachel Schuett</b> 49 South Van Ness Ave, Suite 1400 San Francisco, CA 94103 or <a href="mailto:CPC.WholeFoods2675Geary@sfgov.org">CPC.WholeFoods2675Geary@sfgov.org</a>
	Draft EIR Public Hearing Date:	January 19, 2023	
	Draft EIR Public Comment Period:	December 14, 2022–January 30, 2023	



San Francisco  
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# SUMMARY

## S.1 Introduction

This document is a draft environmental impact report (EIR) for the proposed Whole Foods at 2675 Geary Boulevard Project (proposed project). This chapter of the EIR provides a summary of the proposed project, a summary of anticipated environmental impacts of the proposed project and identified mitigation measures, a summary of alternatives including identification of the environmentally superior alternative, and areas of controversy and issues to be resolved.

## S.2 Project Summary

The project site is a 49,285-square-foot vacant retail space located on level 3 of the existing approximately 250,840-square-foot City Center shopping center.<sup>1</sup> The project site includes parking lot C on level 3, which contains 117 parking spaces. City Center is located at the southeast corner of Masonic Avenue and Geary Boulevard in the Western Addition neighborhood of San Francisco and occupies the block bounded by Geary Boulevard to the north, Masonic Avenue to the west, O'Farrell Street to the south, and Lyon Street to the east. The project site is located within the NC-3 (Moderate-Scale Neighborhood Commercial) zoning district and is within the 40-X and 80-X height and bulk districts.

The project sponsor, Whole Foods Market, proposes to renovate an existing approximately 49,825-square-foot, vacant retail space with a new Whole Foods Market grocery store at 2675 Geary Boulevard in San Francisco. The proposed grocery store would total 49,825 square feet, of which approximately 25,030 square feet would comprise the sales floor. The remaining approximately 24,795 square feet would be dedicated to other uses: seating areas, checkout, self-checkout, and back-of-house uses such as offices, restrooms, freezers, kitchens, and storage areas for online orders.<sup>2</sup>

The existing onsite parking lot C would be available for parking by Whole Foods Market customers. Loading and deliveries would occur from an existing onsite, 3,528-square-foot receiving area and adjacent loading dock accessed from O'Farrell Street just east of Anzavista Avenue, via parking lot E. No changes to vehicle parking, bicycle parking, loading, driveway access, or onsite circulation are proposed. In addition, no changes are proposed to the public right-of-way.

The proposed project consists of interior renovations within the existing vacant retail space; replacement of existing heating, ventilation, and air conditioning (HVAC) equipment in the rooftop mechanical penthouse; an approximately 700-square-foot horizontal expansion of the rooftop mechanical penthouse to accommodate the new HVAC equipment; and new exterior signage. The proposed project would not require excavation.

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<sup>1</sup> The existing vacant space on level 3 is 54,285 square feet, with two separate entrances. The building owner/landlord plans to retain 4,460 square feet of space; 49,285 square feet would be available for the proposed project. The future use of the smaller space is unknown at this time, and it is not part of the proposed project.

<sup>2</sup> These areas store products ordered online and collected in store by Whole Foods Market employees for pickup or delivery. Customers can order groceries and other in-store products online through Whole Foods Market or Amazon Prime.

## Summary

### S.3. Summary of Impacts and Mitigation Measures

The project sponsor estimates that construction of the proposed project would last approximately 10 months, beginning in October 2024 and ending in summer 2025.

**Table S-1**, summarizes the characteristics of the proposed project.

**Table S-1 Whole Foods at 2675 Geary Boulevard Project Characteristics**

Project Characteristics	Existing	Proposed
Interior area (square feet)	49,825	49,825
Land use	Vacant Retail	Grocery Store
Rooftop mechanical penthouse (square feet)	930	1,630
Hours of loading	—	5 a.m.–3 p.m.
<b>PROPOSED PARKING</b>	<b>NUMBER</b>	
Vehicle parking spaces	117 (Lot C)	117 (Lot C)
Bicycle parking spaces	8 (Lot E)	8 (Lot E)
Americans with Disabilities Act (ADA) parking spaces	1 van ADA; 4 standard ADA	1 van ADA; 4 standard ADA

SOURCE: Whole Foods Market, 2021

## S.3 Summary of Impacts and Mitigation Measures

This EIR analyzes the potential environmental effects of the proposed project. The initial study (Appendix A) determined that the proposed project would have no impact on the following environmental topics or that the topics are not applicable: aesthetics, land use and planning, population and housing, cultural resources, tribal cultural resources, wind, shadow, recreation, public services, biological resources, geology and soils, hydrology and water quality, mineral resources, agriculture and forestry resources, and wildfire hazards (see initial study Section E.1, No Impact or Not Applicable Topics). As a result, the initial study did not discuss these topics further, except to briefly describe why the proposed project would have no impact on these topics or why they are not applicable to the proposed project.

The following topics were analyzed at a greater detail in the initial study (the corresponding sections and abbreviations for each relevant resource topic are included):

- Section E.2, Transportation and Circulation (TR)
- Section E.3, Noise (NO)
- Section E.5, Greenhouse Gas Emissions (GG)
- Section E.6, Utilities and Service Systems (UT)
- Section E.7, Hazards and Hazardous Materials (HZ)
- Section E.8, Energy (EN)

Refer to the initial study in Appendix A for a discussion and the impact analysis of the proposed project with respect to these resource topics.



## EIR TOPICS

The initial study stated that the proposed project *may* have a significant air quality impact and that this topic would be analyzed in the EIR. Additionally, as discussed in Chapter 1, Introduction, in Section 1.E.3, following the publication of the Notice of Preparation of an Environmental Impact Report (NOP) and initial study it was determined that the overall height of the proposed cooling tower (including its base) would be 23 feet tall rather than 21 feet, as analyzed in the initial study. This minor change to the proposed project affects the initial study operational noise analysis, requiring further analysis in this EIR. As to all other noise subtopics, the initial study analysis remains accurate. However, the cumulative impact discussion has been updated to reflect the cumulative projects list in Table 3-1, p. 3-6. As such, this EIR analyzes impacts related to air quality and operational noise, which are addressed in this EIR in Sections 3.A and 3.B, respectively.

The resource topic areas addressed in the EIR are listed below, and the abbreviation for the resource topic used in the naming of impact statements and mitigation measures are shown in parenthesis:

- Section 3.A, Air Quality (AQ)
- Section 3.B, Noise (NO)

Additionally, in response to comments received on the NOP, the potential for the proposed project to result in physical impacts related to urban decay is analyzed in Chapter 4, Other CEQA Issues.

**Table S-2**, p. S-4, and **Table S-3**, p. S-8, summarize all of the impacts of the proposed project, identify the significance of each impact, and present the full text of the recommended mitigation measures. Mitigation measures are feasible measures that would avoid, lessen, or reduce significant impacts, and would be required to be implemented if the project is approved. The summary tables include all impacts and mitigation measures applicable to the proposed project, with the EIR section presented first in Table S-2, followed by the initial study sections in Table S-3.

As indicated in Table S-2 and discussed in detail in Chapter 3, the analysis conducted for this EIR determined that the proposed project would result in potentially significant noise-related impacts at the outdoor playground receptor on level 4 of the City Center, as well as at the northern property plane. The noise section identified that implementation of Mitigation Measure M-NO-3 would reduce the noise impacts to a less-than-significant level.

## Summary

### S.3. Summary of Impacts and Mitigation Measures

**Table S-2 Summary of Impacts of the Proposed Project Identified in the EIR**

Environmental Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
<b>EIR SECTION 3.A, AIR QUALITY</b>			
<b>Impact AQ-1:</b> The proposed project would not conflict with or obstruct implementation of the Clean Air Plan.	LTS	No mitigation required	NA
<b>Impact AQ-2:</b> Construction and operation of the proposed project would not result in a cumulatively considerable net increase of non-attainment criteria air pollutants within the air basin.	LTS	No mitigation required	NA
<b>Impact AQ-3:</b> Construction and operation of the proposed project would not produce emissions of fine particulate matter (PM <sub>2.5</sub> ) and toxic air contaminants that would result in exposure of sensitive receptors to substantial air pollutant concentrations.	LTS	No mitigation required	NA
<b>Impact AQ-4:</b> Construction and operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	No mitigation required	NA
<b>Impact C-AQ-1:</b> Construction and operation of the proposed project, in combination with cumulative projects, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM <sub>2.5</sub> ) and toxic air	LTS	No mitigation required.	NA

Environmental Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
contaminants, but the proposed project's health risk contribution would be less than cumulatively considerable.			
<b>Impact C-AQ-2:</b> Construction and operation of the proposed project, in combination with cumulative projects, would not combine with other sources of odors that would adversely affect a substantial number of people.	LTS	No mitigation required.	NA
<b>EIR SECTION 3.B, NOISE</b>			
<b>Impact NO-3:</b> <sup>a</sup> The proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of applicable standards.	S	<p><b>Mitigation Measure M-NO-3: Mechanical Equipment Noise Control.</b> In order to reduce mechanical equipment noise, the project sponsor shall install noise barriers along the south, west, north, and east sides of the proposed cooling tower to block the line of sight between the cooling tower and daycare facility's outdoor playground and to attenuate noise at the north property plane.</p> <p>The noise barriers shall include, at a minimum, all of the following specifications:</p> <ul style="list-style-type: none"> <li>• Noise Barrier South of Cooling Tower: <ul style="list-style-type: none"> <li>– A total height of approximately 19 feet (an additional 9 feet on top of the 10-foot-tall mechanical penthouse enclosure walls);</li> <li>– A solid barrier with a weight of at least 3 pounds per square foot (psf) and solid without any gaps; and</li> <li>– Sound absorptive material on the side facing the mechanical equipment.</li> </ul> </li> <li>• Noise Barrier North of Cooling Tower (extending at least 10 feet from the northwest and northeast corners to the south): <ul style="list-style-type: none"> <li>– A total height of approximately 26 feet (an additional 16 feet on top of the 10-foot-tall mechanical penthouse enclosure walls);</li> <li>– A solid barrier with a weight of at least 3 pounds per square foot (psf) and solid without any gaps; and</li> <li>– Sound absorptive material on the side facing the mechanical equipment.</li> </ul> </li> </ul>	LTS



## Summary

### S.3. Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation																																
		<div><div><div><div></div><div>Acoustical louvers shall be located at the section of the enclosure east of the cooling tower meeting the minimum insertion loss (noise reduction), as shown below.</div></div></div><table><tr><th></th><th>63 Hertz (Hz)</th><th>125 Hz</th><th>250 Hz</th><th>500 Hz</th><th>1 kilohertz (kHz)</th><th>2 kHz</th><th>4 kHz</th></tr><tr><td>Acoustical Louver Minimum Insertion Loss (dB)</td><td>—</td><td>8</td><td>7</td><td>11</td><td>13</td><td>10</td><td>8</td></tr></table><div><div><div></div><div>The outside air (OSA) units shall include:</div></div><div><div><div></div><div>5 feet of internally lined duct with 1-inch-thick glass fiber duct lining between each of the OSA units and the outside air openings on the penthouse roof; or</div></div><div><div></div><div>As an alternative to an internally lined duct, duct silencers may be provided at the same duct segments described above. Each of the silencers shall meet the minimum insertion loss as shown below.</div></div></div><table><tr><th></th><th>63 Hertz (Hz)</th><th>125 Hz</th><th>250 Hz</th><th>500 Hz</th><th>1 kilohertz (kHz)</th><th>2 kHz</th><th>4 kHz</th></tr><tr><td>Silencer Minimum Insertion Loss (dB)</td><td>—</td><td>—</td><td>6</td><td>6</td><td>12</td><td>10</td><td>6</td></tr></table><div><p>In lieu of the above, the project sponsor may install alternative noise control measures provided the sponsor submits documentation demonstrating that noise from the alternative measures would not exceed 62.5 dBA at the daycare facility’s outdoor playground and 55 dBA at the north property plane, on level 4 of City Center.</p><p>Upon installation of the proposed project’s mechanical equipment and required noise control measures, the project sponsor, with approval from the daycare facility, shall take noise measurements of the equipment at various locations within the outdoor playground to confirm that the project’s mechanical equipment noise does not exceed 62.5 dBA. Noise measurements shall also be taken at the north property plane to confirm that noise levels do not exceed 55 dBA. Noise measurements shall be provided to the planning department prior to receipt of a certificate of occupancy. Should noise measurements indicate that the project’s mechanical equipment noise</p></div></div></div>		63 Hertz (Hz)	125 Hz	250 Hz	500 Hz	1 kilohertz (kHz)	2 kHz	4 kHz	Acoustical Louver Minimum Insertion Loss (dB)	—	8	7	11	13	10	8		63 Hertz (Hz)	125 Hz	250 Hz	500 Hz	1 kilohertz (kHz)	2 kHz	4 kHz	Silencer Minimum Insertion Loss (dB)	—	—	6	6	12	10	6	
	63 Hertz (Hz)	125 Hz	250 Hz	500 Hz	1 kilohertz (kHz)	2 kHz	4 kHz																												
Acoustical Louver Minimum Insertion Loss (dB)	—	8	7	11	13	10	8																												
	63 Hertz (Hz)	125 Hz	250 Hz	500 Hz	1 kilohertz (kHz)	2 kHz	4 kHz																												
Silencer Minimum Insertion Loss (dB)	—	—	6	6	12	10	6																												

Environmental Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
		exceeds 62.5 dBA at the daycare facility's outdoor playground or 55 dBA at the north property plane, the project sponsor, with an acoustical consultant, shall install additional noise attenuation measures necessary to ensure that noise levels do not exceed 62.5 dBA and 55 dBA, at the respective locations. Any additional noise attenuation measures shall be approved by the planning department, installed, and verified as not exceeding 62.5 dBA at the outdoor playground and 55 dBA at the north property plane, prior to receiving a certificate of occupancy.	
<b>Impact C-NO-1:</b> <sup>a</sup> The proposed project, in combination with cumulative projects, would not result in significant cumulative noise or vibration impacts.	LTS	No mitigation required.	NA
<b>EIR SECTION 4.B, URBAN DECAY</b>			
<b>Urban Decay:</b> The proposed project would not cause or contribute to multiple business closures leading to long-term commercial vacancies that are prevalent, substantial, and long-lasting, leading to buildings and structures being abandoned and/or becoming derelict to such a degree that the health, safety, and welfare of the surrounding community would be negatively and substantially impacted.	LTS	No mitigation required.	NA

IMPACT CODES:  
NA = Not Applicable  
NI = No impact

LTS = Less-than-significant or negligible impact; no mitigation required  
S = Significant

SU = Significant and unavoidable adverse impact, no feasible mitigation  
SUM = Significant and unavoidable adverse impact, after mitigation

NOTE:

<sup>a</sup> Impact NO-3 and C-NO-1 were analyzed in the initial study in Appendix A; however, as discussed in EIR Section 1.E.3, following the publication of the NOP and initial study, it was determined that the overall height of the proposed cooling tower (including its base) would be 23 feet tall rather than 21 feet, as analyzed in the initial study. This minor change to the proposed project required additional operational noise analysis in this EIR. Impacts NO-3 and C-NO-1 in this EIR supersede the analysis in the initial study for Impacts NO-3 and C-NO-1. No other noise topics analyzed in the initial study are affected by this change; therefore, only Impact NO-3 and C-NO-1 are analyzed in this EIR.

## Summary

### S.3. Summary of Impacts and Mitigation Measures

**Table S-3** Summary of Impacts of the Proposed Project Identified in the Initial Study

Environmental Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
<b>INITIAL STUDY SECTION E.1 NO IMPACT OR NOT APPLICABLE TOPICS<sup>a</sup></b>			
Aesthetics	NA	No mitigation required	NA
Land Use and Planning	NI	No mitigation required	NA
Population and Housing	NI	No mitigation required	NA
Cultural Resources	NI	No mitigation required	NA
Tribal Cultural Resources	NI	No mitigation required	NA
Wind	NI	No mitigation required	NA
Shadow	NI	No mitigation required	NA
Recreation	NI	No mitigation required	NA
Public Services	NI	No mitigation required	NA
Biological Resources	NI	No mitigation required	NA
Geology and Soils	NI	No mitigation required	NA
Hydrology and Water Quality	NI	No mitigation required	NA
Mineral Resources	NA	No mitigation required	NA
Agricultural and Forestry Resources	NA	No mitigation required	NA
Wildfire and Hazards	NA	No mitigation required	NA
<b>INITIAL STUDY SECTION E.2, TRANSPORTATION AND CIRCULATION</b>			
<b>Impact TR-1:</b> Construction of the proposed project would not require a substantially extended duration or an intense activity.	LTS	No mitigation required	NA
<b>Impact TR-2:</b> The proposed project would not create potentially hazardous conditions for people walking, bicycling, or driving or public transit operations.	LTS	No mitigation required	NA



**Summary**  
**S.3. Summary of Impacts and Mitigation Measures**

<b>Environmental Impact</b>	<b>Level of Significance prior to Mitigation</b>	<b>Mitigation Measures</b>	<b>Level of Significance after Mitigation</b>
<b>Impact TR-3:</b> The proposed project would not interfere with accessibility for people walking or bicycling to and from the project site and adjoining areas and would not result in inadequate emergency access.	LTS	No mitigation required	NA
<b>Impact TR-4:</b> The proposed project would not substantially delay public transit.	LTS	No mitigation required	NA
<b>Impact TR-5:</b> The proposed project would not cause substantial additional vehicle miles traveled or substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or by adding new roadways to the network.	LTS	No mitigation required	NA
<b>Impact TR-6:</b> The proposed project would not result in a loading deficit.	LTS	No mitigation required	NA
<b>Impact C-TR-1:</b> The proposed project, in combination with cumulative projects, would not result in significant cumulative impacts related to transportation and circulation.	LTS	No mitigation required	NA
<b>INITIAL STUDY SECTION E.3, NOISE</b>			
<b>Impact NO-1:</b> The proposed project would not generate excessive groundborne vibration or groundborne noise levels.	NI	No mitigation required	NA
<b>Impact NO-2:</b> Construction of the proposed project would not result in a substantial temporary increase in ambient noise levels in the project vicinity in excess of applicable standards.	LTS	No mitigation required	NA
<b>INITIAL STUDY SECTION E.5, GREENHOUSE GAS EMISSIONS</b>			
<b>Impact C-GG-1:</b> The proposed project would generate greenhouse gas emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing greenhouse gas emissions.	LTS	No mitigation required	NA
<b>INITIAL STUDY SECTION E.6, UTILITIES AND SERVICE SYSTEMS</b>			
<b>Impact UT-1:</b> The SFPUC has sufficient water supplies available to serve the proposed project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	No mitigation required	NA
<b>Impact UT-2:</b> The proposed project would not 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; the proposed project would comply with federal, state, and local solid waste management and reduction statutes and regulations.	LTS	No mitigation required	NA

## Summary

### S.3. Summary of Impacts and Mitigation Measures

Environmental Impact	Level of Significance prior to Mitigation	Mitigation Measures	Level of Significance after Mitigation
<b>Impact C-UT-1:</b> The proposed project, in combination with cumulative projects, would not result in significant cumulative impacts on utilities and service systems.	LTS	No mitigation required	NA
<b>INITIAL STUDY SECTION E.7, HAZARDS AND HAZARDOUS MATERIALS</b>			
<b>Impact HZ-1:</b> The proposed project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials.	LTS	No mitigation required	NA
<b>Impact HZ-2:</b> The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	LTS	No mitigation required	NA
<b>Impact HZ-3:</b> The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	LTS	No mitigation required	NA
<b>Impact HZ-4:</b> The proposed project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5, but would not create a significant hazard to the public or the environment.	NI	No mitigation required	NA
<b>Impact HZ-5:</b> The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	No mitigation required	NA
<b>Impact C-HZ-1:</b> The proposed project, in combination with cumulative projects, would not result in a significant cumulative impact related to hazards and hazardous materials.	LTS	No mitigation required	NA
<b>INITIAL STUDY SECTION E.8, ENERGY</b>			
<b>Impact EN-1:</b> The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	No mitigation required	NA
<b>Impact C-EN-1:</b> The proposed project, in combination with cumulative projects, would increase the use of energy resources, but not in a wasteful manner.	LTS	No mitigation required	NA

**IMPACT CODES:**

NA = Not Applicable  
NI = No impact

LTS = Less than significant or negligible impact; no mitigation required  
S = Significant

SU = Significant and unavoidable adverse impact, no feasible mitigation  
SUM = Significant and unavoidable adverse impact, after mitigation

**NOTE:**

<sup>a</sup> Initial study topics determined to have “No Impact” were addressed in initial study Section E.1. No impact statements were included for these topics in the initial study; therefore, impact statements are omitted from this table.

## S.1 Summary of Project Alternatives

Chapter 5 of this EIR analyzes the following alternatives:

- Alternative A1: No Project – Vacant Retail Space
- Alternative A2: No Project – Future Retail Tenant – No Cold Storage
- Alternative B: Noise Exposure Reduction Alternative, Taller Cooling Tower on Level 3

These alternatives represent a reasonable range of potentially feasible alternatives to the proposed project that would avoid or lessen the less-than-significant-with-mitigation noise impact. However, only one alternative, Alternative B, could attain most of the project objectives. Each alternative is summarized below.

### S.1.1 Alternative A1: No Project – Vacant Retail Space

#### DESCRIPTION OF ALTERNATIVE

Alternative A1 assumes that the proposed project and related improvements would not be constructed and implemented at the project site. The project site would remain as is; no modifications or renovations would be conducted, no tenant would move in, and the project site would remain vacant. This would be a continuation of a long-term vacancy, as the project site has been vacant since 2017.

#### SUMMARY OF IMPACTS

Under Alternative A1, none of the impacts associated with the proposed project would occur. Alternative A1 would avoid the less-than-significant-with-mitigation noise impact that would result from implementation of the proposed project.

### S.1.2 Alternative A2: No Project – Future Retail Tenant – No Cold Storage

#### DESCRIPTION OF ALTERNATIVE

According to the CEQA Guidelines, as part of the No Project Alternative, the alternatives analysis is required to include a discussion of the continuation of the existing conditions (i.e., no development at all), as well as what could be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines section 15126.6(e)(2)). If the proposed project were not approved, it is reasonable to assume that a future retail tenant could occupy the vacant 49,825-square-foot space.

Under Alternative A2, the future retail tenant would be selling dry goods and would not require cold storage or the associated cooling tower. Examples of dry goods include clothing, books, electronics, furniture, sporting goods, art supplies, etc.

For the purposes of the impact analysis, it is assumed that the future retail tenant operations would be comparable to the proposed project in terms of truck trips and operations. However, it is assumed trucks delivering to the site do not require refrigeration and do not have a transportation refrigeration unit (TRU). It is also assumed that some upgrades to the HVAC equipment may be required to support the new use and

## Summary

### S.1. Summary of Project Alternatives

meet the latest Title 24 and Green Building Code regulations. However, it is assumed any new HVAC equipment would generate noise levels similar to the existing equipment noise levels.

## SUMMARY OF IMPACTS

Under Alternative A2, the existing approximately 49,825-square-foot, vacant retail space would be renovated with a new retail use that would involve only dry goods storage and sales. This alternative would consist of interior renovations within the existing vacant retail space and would require replacement of the HVAC equipment in the rooftop mechanical penthouse but would not require the approximately 700-square-foot horizontal expansion of the rooftop mechanical penthouse because this alternative would not include a cooling tower. Similar to the proposed project, new exterior signage would likely also be installed under this alternative. While new noise-generating mechanical equipment would be required, Alternative A2 would reduce the less-than-significant-with-mitigation noise impact that would result from implementation of the proposed project because it would not include a cooling tower and exhaust fans. It is assumed that new HVAC equipment would meet the requirements of the Noise Ordinance and would generate noise levels similar to the noise levels from the existing equipment. Therefore, Alternative A2 would not result in any project-level or cumulative impacts related to noise.

### S.1.3 Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3

## DESCRIPTION OF ALTERNATIVE

Alternative B would be similar to all aspects of the proposed project, except that it would include a cooling tower on level 3 of the City Center shopping center. The cooling tower under Alternative B would have the same footprint as the proposed project but would have different specifications. Based on the manufacturer's technical sheet, the cooling tower's noise rating would be 8 dB lower than the proposed project's cooling tower.<sup>3</sup> Under this alternative, the cooling tower would be located to the right side of the proposed entrance of the store, would be approximately 28 feet tall (5 feet taller than under the proposed project),<sup>4</sup> and up to two ADA-accessible parking spots would need to be relocated on level 3.

Relocating the cooling tower to level 3 would increase the distance between the cooling tower, the outdoor playground receptors, and the north property plane. In addition, the City Center building would provide shielding between the cooling tower and the north property plane, which would reduce noise levels at the northern property plane.

All other aspects of the proposed project would be similar under Alternative B. Like the proposed project, the existing vacant retail space would be renovated with an existing approximately 49,825-square-foot, Whole Foods Market grocery store. Alternative B would include the same improvements to the receiving area and adjacent loading dock, and no changes to vehicle parking, bicycle parking, loading, driveway access, or onsite circulation would occur. Other than the cooling tower, the same outside air unit and other mechanical equipment would be constructed within the rooftop mechanical penthouse. However, the approximately

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<sup>3</sup> Evapco, *Closed Circuit Cooler Technical Data Sheet*, (1) ESW4 12-44L12-SP, July 20, 2022.

<sup>4</sup> Salter, *2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations*, Salter Project 21-0548, September 16, 2022.

700-square-foot horizontal expansion of the rooftop mechanical penthouse would not be required. Lastly, grocery store operations would be identical to the proposed project under Alternative B.

## SUMMARY OF IMPACTS

Under Alternative B, the cooling tower would be approximately 5 feet taller than the proposed project's cooling tower and would be relocated to an area to the right of the store entrance. The alternative equipment and location would result in lower noise levels at the west and south property planes, and at the outdoor playground receptor. The noise analysis for the alternative equipment and location determined that noise levels would be 57 dBA at the north property plane, which would exceed the 55 dBA noise limit. The noise level at the north property plane under this alternative would be from the outside air units. Therefore, implementation of the OSA noise reduction features specified in Mitigation Measure M-NO-3 would still apply to Alternative B. However, the noise barriers and louvers specified in Mitigation Measure M-NO-3 would not apply to Alternative B. Overall, this alternative would result in lower noise levels at two of the three property planes and at the outdoor playground receptor and therefore would have reduced noise impacts compared to the proposed project.

## S.2 Environmentally Superior Alternative

**Table S-4** presents a summary comparison of the impacts of the proposed project and all the alternatives. Alternative A1 is considered the environmentally superior alternative because none of the less-than-significant impacts that would occur with proposed project implementation would occur with implementation of Alternative A1. However, Alternative A1 does not meet any of the project sponsor's objectives.

If it is found that the environmentally superior alternative is the No Project Alternative, CEQA requires another alternative to be identified as the environmentally superior alternative. Because Alternative B would reduce noise impacts compared to the proposed project, Alternative B is considered the environmentally superior alternative.

**Table S-4 Comparison of Proposed Project and Alternatives**

Project Characteristics	Proposed Project	Alternative A: No Project		Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3
		Alternative A1: No Project – Vacant Retail Space	Alternative A2: No Project – Future Retail Tenant – No Cold Storage	
DESCRIPTION				
Interior area (square feet)	49,825	49,825	49,825	49,825
Land use	Grocery Store	Vacant	Retail – no cold storage	Grocery Store
Rooftop mechanical penthouse (square feet)	1,630	930	930–1,630 <sup>a</sup>	930
Loading operations	5 a.m.–3 p.m.	None	5 a.m.–3 p.m.	5 a.m.–3 p.m.
Off-road construction equipment	Average crane	None	Average crane	Average crane
Cooling tower location	Level 4	None	None	Level 3

## Summary

### S.2. Environmentally Superior Alternative

Project Characteristics	Proposed Project	Alternative A: No Project		Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3
		Alternative A1: No Project – Vacant Retail Space	Alternative A2: No Project – Future Retail Tenant – No Cold Storage	
ABILITY TO MEET PROJECT SPONSOR’S OBJECTIVES				
Re-use an existing vacant retail space to provide a new full-service grocery store.	Yes	No	No	Yes
Avoid exterior modifications to the site or to the existing building except for necessary replacements of existing heating, ventilation, and air conditioning (HVAC) equipment in the building’s mechanical penthouse.	Yes	Yes	Yes	No
Provide convenient grocery shopping, with existing parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain.	Yes	No	No	Yes
Provide the local community with access to a wider range of healthy foods and organic grocery and produce options.	Yes	No	No	Yes
Comply with the City’s General Plan, including the priority policies and applicable policies and objectives for grocery stores.	Yes	No	No	Yes
Minimize negative consequences to the surrounding neighborhoods.	Yes	Unknown	Yes	Yes
Provide employment opportunities for City residents.	Yes	No	Yes	Yes
Provide opportunities for local suppliers of organic foods.	Yes	No	No	Yes
COMPARISON OF ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES				
NOISE				
Impact NO-3: The proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of applicable standards.	LTSM	< NI	< LTS	<LTSM
Impact C-NO-1: The proposed project, in combination with cumulative projects, would not result in significant cumulative noise or vibration impacts.	LTS	<NI	<LTS	<LTS
AIR QUALITY				
Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the Clean Air Plan.	LTS	<NI	<LTS	=LTS



Project Characteristics	Proposed Project	Alternative A: No Project		Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3
		Alternative A1: No Project – Vacant Retail Space	Alternative A2: No Project – Future Retail Tenant – No Cold Storage	
Impact AQ-2: Construction and operation of the proposed project would not result in a cumulatively considerable net increase of non-attainment criteria air pollutants within the air basin.	LTS	<NI	<LTS	=LTS
Impact AQ-3: Construction and operation of the proposed project would not produce emissions of fine particulate matter (PM <sub>2.5</sub> ) and toxic air contaminants that would result in exposure of sensitive receptors to substantial air pollutant concentrations.	LTS	<NI	<LTS	=LTS
Impact AQ-4: Construction and operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	<NI	<LTS	=LTS
Impact C-AQ-1: Construction and operation of the proposed project, in combination with cumulative projects would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM <sub>2.5</sub> ) and toxic air contaminants, but the proposed project's health risk contribution would be less than cumulatively considerable.	LTS	<NI	<LTS	=LTS
Impact C-AQ-2: Construction and operation of the proposed project, in combination with cumulative projects, would not combine with other sources of odors that would adversely affect a substantial number of people.	LTS	<NI	<LTS	=LTS
Urban Decay: The proposed project would not cause or contribute to multiple business closures leading to long-term commercial vacancies that are prevalent, substantial, and long-lasting, leading to buildings and structures being abandoned and/or becoming derelict to such a degree that the health, safety, and welfare of the surrounding community would be negatively and substantially impacted.	LTS	<LTS	=LTS	=LTS

NOTES:

<sup>a</sup> It is assumed a future retail tenant *may* require upgrades to the HVAC system depending on the size and type of the use(s) but would not require the addition of the cooling tower to support refrigeration needs.

IMPACT CODES:

NI = No impact      LTS = Less-than-significant or negligible impact; no mitigation required      LTSM = Less-than-significant impact; mitigation required      = (equal to proposed project impact)      < (less than proposed project impact)

### S.3 Areas of Known Controversy and Issues to Be Resolved

As described in Section 1.B, Project Background, p. 1-2, on March 16, 2021, the board adopted Motion No. M21-047 (see Appendix A, Attachment 2) reversing the determination by the planning department that the proposed project is exempt from CEQA under the common-sense exemption.<sup>5</sup> The board directed the planning department to undertake additional analysis related to air quality, specifically stating the following:

*... MOVED, That the Board of Supervisors reverses the determination by the Planning Department that the Project is exempt from CEQA under the Common Sense Exemption; and, be it FURTHER MOVED, That the Board directs the Planning Department to further analyze the potential air quality impacts of the Project to sensitive receptors in the vicinity of the Project site. ...*

Regarding all other environmental issues, the board found the common-sense exemption to be in conformance with the requirements of CEQA; specifically stating the following:

*... and, be it FURTHER MOVED, That as to all other issues, the Board finds the Common Sense Exemption conforms to the requirements of CEQA and is adequate, accurate, and objective, the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required.*

This EIR provides additional air quality analysis, as directed by the board. Also see Section 4.E.1, 2020 CEQA Exemption Appeal, p. 4-13, for additional discussion of how this EIR addresses the concerns raised during the appeal of the previously issued common sense exemption for the proposed project.

Publication of the notice of preparation of an EIR and initial study initiated a 30-day public review and comment period that began on June 22, 2022, and ended on July 22, 2022. During the review and comment period, six individuals submitted comments to the planning department. Five of the comments expressed support for approval of the proposed project. Comments in support of the project noted the added benefit to the local neighborhood from Whole Foods occupying this vacant commercial space in terms of either adding a new grocery option to the area, filling a vacant commercial space, and/or stimulating the local economy by adding pedestrian traffic and activity.

One commenter provided comments on the scope of the environmental review regarding air quality, noise and urban decay impacts. The commenter requested that the draft EIR include an analysis of the project's potential to result in store closures, urban decay, and blight. In response to this comment, Section 4.B, Urban Decay, p. 4-2, analyzes the potential for the proposed project to result in urban decay. The analysis concludes that the proposed project would not directly create or contribute to an urban decay impact and the potential for the project to result in physical impacts related to urban decay would be less than significant.

Comments received on the NOP and the initial study are summarized in more detail in Chapter 1, Introduction, in Table 1-1, p. 1-6. Table 1-1 also indicates where comments received on the NOP and initial study are addressed in this EIR.

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<sup>5</sup> San Francisco Board of Supervisors, *Findings to Reverse the Common-Sense Exemption – 2675 Geary Boulevard*, file no. 210266, motion no. M21-047, March 16, 2021.

# CHAPTER 1

## INTRODUCTION

### 1.A Project Summary

This environmental impact report (EIR) analyzes the potential environmental effects associated with the Whole Foods at 2675 Geary Boulevard Project (proposed project). The project sponsor (Whole Foods Market) proposes to renovate an existing 49,825-square-foot vacant retail space for a new Whole Foods Market grocery store, of which approximately 25,030 square feet would comprise the sales floor. The remaining 24,795 square feet would be dedicated to other uses: seating areas, checkout, self-checkout, and back-of-house uses such as offices, restrooms, freezers, kitchens, and storage areas for online orders.<sup>6</sup> The grocery store would sell grocery items, prepared foods, medicine, household products, beverages, and other retail items. The store would have a lounge and seating area with a capacity of 50 people.

The existing onsite parking lot C (on level 3) would be available for parking for Whole Foods Market customers. Freight and commercial loading activities would occur from an existing onsite 3,528-square-foot receiving area and adjacent loading dock, accessed from O'Farrell Street just east of Anzavista Avenue, via parking lot E (on level 2). No changes to vehicle parking, bicycle parking, loading, driveway access, or onsite circulation are proposed. In addition, no changes are proposed to the public right-of-way. The proposed project consists of interior renovations within the existing vacant retail space, replacement of existing heating, ventilation, and air conditioning (HVAC) equipment and the addition of refrigeration equipment in the mechanical penthouse, an expansion of the rooftop penthouse to accommodate the new equipment, replacement of two dock levelers, and new exterior signage.

This EIR, which includes the initial study that was circulated for a 30-day public review period between June 22, 2022, and July 22, 2022 (see Appendix A), determined that the proposed project would not result in a significant impact, either individually or cumulatively for the following topics: land use and land use planning; population and housing; cultural resources; tribal cultural resources; transportation; greenhouse gas emissions; wind; shadow; recreation; utilities and service systems; public services; biological resources; hydrology and water quality; hazards and hazardous materials; mineral resources; energy resources; agriculture and forestry resources; and wildfire hazards.

The initial study determined that the proposed project has the potential to result in a significant air quality impact and air quality impacts of the proposed project would be analyzed in an EIR. The initial study also determined that mechanical equipment would result in a significant noise impact that could be reduced to a less-than-significant level with incorporation of Mitigation Measure M-NO-3, which has been agreed to by the project sponsor.

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<sup>6</sup> These areas store products ordered online and collected in store by Whole Foods Market employees for pickup or delivery. Customers can order groceries and other in-store products online through Whole Foods Market or Amazon Prime.

## 1.B Project Background

On July 23, 2019, the project sponsor filed a project application for the proposed project with the planning department, seeking a conditional use authorization for a formula retail use.<sup>7</sup>

On June 25, 2020, the Planning Commission issued a Conditional Use Authorization pursuant to planning code sections 303, 303.1, and 712 to permit a Formula Retail use (doing business as “Whole Foods Market”) within a NC-3 zoning district, thereby approving the project.

On September 11, 2020, after rescinding a class 32 categorical exemption that was issued on May 14, 2020, the planning department determined that the proposed project was eligible for a common sense exemption under the California Environmental Quality Act (CEQA) Guidelines section 15061(b)(3).<sup>8</sup> The planning department made this decision based on its analysis, concluding that there is no possibility that the proposed project could have a significant adverse effect on the environment.<sup>9</sup>

On September 18, 2020, M.R. Wolfe & Associates, P.C. on behalf of others (appellant) filed an appeal of the common-sense exemption to the San Francisco Board of Supervisors (board).<sup>10</sup>

On September 29, 2020, the planning department determined that the appeal was timely filed.<sup>11</sup>

On November 17, 2020, the board held a duly noticed public hearing to consider the appeal of the common-sense exemption. Following the public hearing, the board adopted Motion No. M20-175 conditionally reversing the exemption determination subject to written findings.<sup>12</sup>

On March 16, 2021, the board adopted Motion No. M21-047 (see Appendix A, Attachment 2) reversing the determination by the planning department that the proposed project is exempt from CEQA under the common-sense exemption. The board directed the planning department to undertake additional analysis related to air quality, specifically stating the following:

*... MOVED, That the Board of Supervisors reverses the determination by the Planning Department that the Project is exempt from CEQA under the Common Sense Exemption; and, be it FURTHER*

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<sup>7</sup> Whole Foods Market California, Inc., Project Application (PRJ), Project Address: 2675 Geary Boulevard, July 23, 2019, <https://citypln-m-extnl.sfgov.org/External/link.ashx?Action=Download&ObjectVersion=-1&vault={A4A7DADC-B0DC-4322-BD29-F6F07103C6E0}&ObjectGUID={B14E02AE-432F-4391-9E0C-D5E5AA5DC935}&fileGUID={AB0312E7-A70E-46A7-8945-07E9ED70B2C5}>, accessed October 15, 2021. This document (and all documents cited in this report unless otherwise noted) are available for review on the following website: <https://sfplanning.org/resource/permits-my-neighborhood>. Individual files related to environmental review can be accessed by entering the project address (2675 Geary Boulevard) into the search box, clicking on the blue dot on the project site, and then clicking on the “Documents” button under the ENV application number on the right side of the screen. Project application materials can be viewed by clicking on the “Documents” button under the PRJ case number. The “Filters” function can be used to search by case number.

<sup>8</sup> San Francisco Planning Department, *CEQA Common Sense Exemption Determination, 2675 Geary Boulevard*, Case No. 2019-004110ENV, September 11, 2020.

<sup>9</sup> The planning department issued a class 32 categorical exemption on May 14, 2020, and the proposed project was approved by the planning commission on June 25, 2020. Subsequent to the project approvals, the planning department rescinded the Class 32 categorical exemption and issued a common-sense exemption on September 11, 2020.

<sup>10</sup> M.R. Wolfe & Associates, P.C., *Appeal to the Board of Supervisors of CEQA “Common Sense” Exemption Determination 2019-004110ENV – 2675 Geary Boulevard [Whole Foods Market], Conditional Use Authorization*, September 17, 2020.

<sup>11</sup> San Francisco Planning Department, *Appeal Timeliness Determination – 2675 Geary Boulevard Common Sense Exemption*; Planning Department Case No. 2019-004110ENV, September 11, 2020.

<sup>12</sup> San Francisco Board of Supervisors, *File No. 201129, Motion No. M20-175, Conditionally Reversing the Exemption Determination – 2675 Geary Boulevard*, November 17, 2020. <https://sfbos.org/sites/default/files/m20-0175.pdf>, accessed December 8, 2022.

*MOVED, That the Board directs the Planning Department to further analyze the potential air quality impacts of the Project to sensitive receptors in the vicinity of the Project site. ...*

Regarding all other environmental issues, the board found the common-sense exemption to be in conformance with the requirements of CEQA; specifically stating the following:

*... and, be it FURTHER MOVED, That as to all other issues, the Board finds the Common Sense Exemption conforms to the requirements of CEQA and is adequate, accurate, and objective, the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required.*

On March 24, 2021, the project sponsor submitted revised project plans which include:

- Partial removal of the roof to allow for replacement of the HVAC equipment and the addition of refrigeration equipment (including a cooling tower), and expansion of the rooftop mechanical penthouse.
- Reduction of the floorplate for the project site from 54,285 square feet to 49,825 square feet.
- Re-characterization of the areas previously characterized as independent restaurant and café uses as a seating area for the consumption of prepared foods and beverages sold within the proposed Whole Foods Market.

These revisions are now included as part of the proposed project (see Chapter 2, Project Description).

This EIR includes an initial study as Appendix A. The initial study evaluated the potential for the proposed project to result in significant environmental impacts and found that the proposed project with incorporation of Mitigation Measure M-NO-3 to reduce mechanical equipment noise has no possibility of resulting in a significant environmental impact for any topic, except for air quality, which would be analyzed in the EIR.

## 1.C Purpose of This EIR

This EIR was prepared in accordance with all criteria, standards, and procedures of CEQA, as amended (California Public Resources Code section 21000 et seq.); the CEQA Guidelines (California Code of Regulations title 14, section 15000 et seq.); and San Francisco Administrative Code chapter 31. In accordance with CEQA section 21067 and CEQA Guidelines sections 15367 and 15050–15053, the City and County of San Francisco (city) is the lead agency, under whose authority this document has been prepared.

As described by CEQA and the CEQA Guidelines, public agencies are charged with a duty to avoid or substantially lessen significant environmental effects, where feasible. In undertaking this duty, a public agency has an obligation to balance a project's significant effects on the environment with its benefits, including economic, social, technological, legal, and other non-environmental characteristics.

As defined in CEQA Guidelines section 15382, a “significant effect on the environment” is:

*“... a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall*

*not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”*

CEQA requires an EIR to be prepared before a discretionary decision is made to approve a project that may cause a significant effect on the environment that cannot be mitigated. The EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental impacts of a project, identify mitigation measures to lessen or eliminate significant adverse impacts, and examine feasible alternatives to the project.

The City must consider the information in this EIR and make certain findings with respect to each significant effect identified. The decision makers will review and consider the information in this EIR, along with other information available through the public review processes, before they decide to approve, disapprove, or modify the proposed project or adopt an alternative to the proposed project.

## **1.D Type of EIR**

This document is a project-level EIR, pursuant to CEQA Guidelines section 15161. A project-level EIR focuses on changes in the environment that would result from construction and operation of a specific project. Furthermore, this EIR is also a focused EIR, pursuant to CEQA Guidelines section 15063(c)(3). As described above, an initial study was prepared for the proposed project in accordance with sections 15062 and 15082. The initial study was published with the notice of preparation (NOP) of an EIR on June 22, 2022.

Comments were accepted on the initial study during the public review period for the NOP, which ended on July 22, 2022.<sup>13</sup> The initial study identified the topics for which the proposed project would result in no impacts, less-than-significant impacts, or impacts that could be reduced to less than significant with implementation of the mitigation measures identified in the initial study, and therefore do not require further analysis in this EIR.

An EIR is an informational document used by a lead agency (in this case, the City) when considering approval of a project. The purpose of an EIR is to provide public agencies and members of the public with detailed information regarding the environmental effects of implementing a proposed project. An EIR should analyze a project's environmental consequences, identify ways to reduce or avoid a project's potential environmental effects, and identify alternatives to a project that can avoid or reduce impacts.

This EIR provides information to be used in the planning and decision-making process. It is not the purpose of an EIR to recommend approval or denial of a project.

Before it can approve the project, the City, as the lead agency and decision-making entity, must certify that this EIR has been completed in compliance with CEQA, that the information in the EIR has been considered, and that the EIR reflects the City's independent judgment. CEQA requires decision makers to balance the benefits of a project against its unavoidable environmental consequences. If environmental impacts are identified as significant and unavoidable, the City may still approve the project if it finds that social, economic, or other benefits outweigh the unavoidable impacts. The City would then be required to state in

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<sup>13</sup> Under CEQA Guidelines section 15128, the EIR must contain a brief statement indicating the reasons why certain effects were determined not to be significant and, thus, are not studied in detail in this EIR. CEQA Guidelines are available online at [https://www.califaep.org/docs/CEQA\\_Handbook\\_2021.pdf](https://www.califaep.org/docs/CEQA_Handbook_2021.pdf), accessed December 14, 2021.



writing the specific reasons for approving the project, based on information in the EIR and other information sources in the administrative record. This reasoning is called a “statement of overriding considerations” (Public Resources Code section 21081; CEQA Guidelines section 15093). In addition, the City must adopt a mitigation monitoring and reporting program, describing the measures that were made a condition of project approval to avoid or mitigate significant effects on the environment (Public Resources Code section 21081.6; CEQA Guidelines section 15097). The mitigation monitoring and reporting program, which is adopted at the time of project approval, is designed to ensure compliance with EIR mitigation measures during and after project implementation. If the City decides to approve the project, it will be responsible for verifying that the mitigation monitoring and reporting program for this project is implemented. The EIR will be used primarily by the City during approval of future discretionary actions and permits.

## 1.E CEQA Environmental Review Process

CEQA Guidelines sections 15080 and 15097 set forth the EIR process, which includes multiple phases involving notification and input from responsible agencies and the public, as described below.

### 1.E.1 Notice of Preparation of an EIR

In accordance with CEQA Guidelines sections 15063 and 15082, the San Francisco Planning Department (planning department) published and distributed a notice of preparation (NOP) of an EIR for the proposed project and an initial study on June 22, 2022. The NOP and initial study were sent to governmental agencies, organizations, and persons interested in the proposed project, and publication of the NOP and initial study initiated the 30-day public scoping period for this EIR, which started on June 22, 2022, and ended on July 22, 2022. The NOP and initial study included a description of the proposed project and a request for agencies and the public to submit comments on the scope of the environmental issues that should be addressed in this EIR. The NOP and initial study are included as Appendix A.

In total, the planning department received comments from six individuals. No agencies submitted comments. The comments received in response to the NOP and initial study during the public scoping period are included in Appendix B of this document.

### 1.E.2 Scoping Comments

The planning department has considered the comments made by the public in preparation of this EIR, as summarized in **Table 1-1**. Comments on the NOP and initial study that relate to environmental issues are addressed and analyzed throughout this EIR and initial study (see Appendix A for the initial study). The scoping comments, as summarized in the table below, also indicate areas of controversy known to the lead agency and issues to be resolved, per CEQA Guidelines section 15123.

**Table 1-1 Summary of Scoping Comments**

EIR	Comment	Location in EIR
EIR		
<b>Chapter 2, Project Description</b>	<ul style="list-style-type: none"> <li>Provide anticipated truck travel routes for parcel delivery/last-mile vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 2, Project Description, p. 2-8</li> </ul>
<b>Section 3.A, Air Quality</b>	<ul style="list-style-type: none"> <li>Study air quality effects on people living, working, and attending school near the site</li> </ul>	<ul style="list-style-type: none"> <li>Section 3.A, Air Quality, pp. 3.A-21 to 3.A-42</li> </ul>
	<ul style="list-style-type: none"> <li>Disclose the number and type of diesel trucks expected to access the project site</li> </ul>	<ul style="list-style-type: none"> <li>Appendix C, Air Quality Technical Information, Table 3</li> </ul>
	<ul style="list-style-type: none"> <li>Disclose the number and type of transportation refrigeration units, including the estimated idle time</li> </ul>	<ul style="list-style-type: none"> <li>Appendix C, Air Quality Technical Information, Table 10</li> </ul>
	<ul style="list-style-type: none"> <li>Include daily and peak-hour trip generation</li> </ul>	<ul style="list-style-type: none"> <li>Appendix D, Transportation Technical Information, Table B-3</li> </ul>
	<ul style="list-style-type: none"> <li>Disclose the number, type, and engine classification of all construction equipment and construction vehicles expected</li> </ul>	<ul style="list-style-type: none"> <li>Appendix C, Air Quality Technical Information, Table 2 includes estimates for off-road non-electric construction equipment and on-road construction vehicles</li> </ul>
<b>Section 3.B, Noise</b>	<ul style="list-style-type: none"> <li>Study the project's noise impacts from construction and operation at the closest residential receptor</li> </ul>	<ul style="list-style-type: none"> <li>Section 3.A, Noise (operational noise) and Appendix A, Initial Study, p. 34 (construction noise)</li> </ul>
<b>Chapter 4, Other CEQA Issues</b>	<ul style="list-style-type: none"> <li>Study the potential for the project to trigger retail store closures in the area leading to urban decay and blight</li> </ul>	<ul style="list-style-type: none"> <li>Chapter 4, Other CEQA Issues, p. 4-2</li> </ul>

### 1.E.3 Project Changes after the Publication of the Notice of Preparation and Initial Study

Following the publication of the NOP and initial study the project sponsor determined that the overall height of the proposed cooling tower (including its base) would be 23 feet tall rather than 21 feet, as analyzed in the initial study. All other construction and operational components of the proposed project would be the same as described in the NOP.

This minor change in the height of the cooling tower would not affect the overall height of City Center, since it would be located on the level 3 rooftop and would not surpass the heights of levels 4 and 5 of the City Center shopping center, see Figure 2-4, p. 2-6. Thus, this height increase would not change wind or shadow impact conclusions presented in the initial study. Further, the minor change in the height of the cooling tower would not change the analysis for other environmental topics analyzed in the initial study, apart from the noise analysis. The noise levels from the 23-foot-tall cooling tower were analyzed at the property planes and at the childcare facility's rooftop outdoor space in a revised technical memorandum; the findings are

summarized in Section 3.B, Noise.<sup>14</sup> The cumulative analysis has also been updated to reflect the revised cumulative project list in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, Table 3-1, p. 3-6.

#### 1.E.4 Draft EIR Public Review Process

The CEQA Guidelines and San Francisco Administrative Code chapter 31 encourage public participation in the planning and environmental review processes. The planning department provides opportunities for the public to present comments and concerns regarding this EIR, throughout the environmental review process. These opportunities include a public review and comment period and a public hearing before the San Francisco Planning Commission (planning commission).

The public review period for the draft EIR is from December 14, 2022, to January 30, 2023. The planning commission will hold a public hearing on this draft EIR during the 47-day public review<sup>15</sup> and comment period for this draft EIR. The purpose of the hearing is to solicit public comment on the information presented in this draft EIR. The public hearing will be held on January 19, 2023, beginning at **1 p.m. or later**. Members of the public can attend the hearing in-person at City Hall or participate remotely. Additional information may be found on the planning department's website at [www.sfplanning.org](http://www.sfplanning.org).

The draft EIR and all attachments are available for public review and comment on the planning department's Negative Declarations and EIRs web page (<http://www.sf-planning.org/sfceqadocs>). A USB or paper copy of the draft EIR will be mailed upon request. Referenced materials will also be made available for review upon request. Contact the EIR Coordinator, Rachel Schuett, at [CPC.WholeFoods2675Geary@sfgov.org](mailto:CPC.WholeFoods2675Geary@sfgov.org) or 628.652.7546, to make a request.

Governmental agencies, interested organizations, and other members of the public are invited to submit written comments on the draft EIR during the public review period. The comments should address the sufficiency of the document with respect to identifying and analyzing possible significant environmental impacts and determining how they may be avoided or mitigated.

All written comments or questions about the draft EIR should be addressed to:

San Francisco Planning Department  
Attention: Rachel Schuett, Environmental Coordinator  
49 South Van Ness Avenue, Suite 1400  
San Francisco, CA 94103  
[CPC.WholeFoods2675Geary@sfgov.org](mailto:CPC.WholeFoods2675Geary@sfgov.org)

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

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<sup>14</sup> Salter, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations, Salter Project 21-0548, May 27, 2022 (revised September 28, 2022).

<sup>15</sup> Note: the public review period for this project is 47 days, because the close of the 45-day review period falls on a Saturday.

### 1.E.5 Final EIR and EIR Certification

Following the close of the public review and comment period for this draft EIR, the City will prepare and publish a document titled “Responses to Comments.” This document will contain all written, email, and recorded oral comments received on this draft EIR and written responses to those comments, along with copies of the letters or emails received, a transcript of the public hearing on the draft EIR, and any necessary revisions to the draft EIR. The draft EIR and the responses to comment document will constitute the final EIR. Not less than 10 days prior to the planning commission hearing to consider certification of the final EIR, the final EIR will be made available to the public and any board(s), commission(s) or department(s) that will carry out or approve the proposed project.

The planning commission, in an advertised public meeting, will consider the documents and, if found adequate, accurate, and objective, certify the final EIR, provided it (1) was completed in compliance with CEQA; (2) was presented to the San Francisco Planning Commission and the commission reviewed and considered the information contained in the Final EIR prior to taking an approval action on the proposed project; and (3) reflects the lead agency’s independent judgment and analysis. CEQA requires that agencies shall neither approve a project nor implement a project unless the project’s significant environmental impacts have been reduced to a less-than-significant level, thereby essentially eliminating, avoiding, or substantially lessening the potentially significant impacts of the proposed project, except when certain findings are made. If an agency approves a project that would result in the occurrence of significant adverse impacts that cannot feasibly be mitigated to less-than-significant levels (that is, significant and unavoidable impacts), the agency must state the reasons for its action in writing; demonstrate that mitigation is infeasible, based on the EIR or other information in the record; and adopt a statement of overriding considerations.

### 1.E.6 Mitigation Monitoring and Reporting Program

At the time of project approval, CEQA and the CEQA Guidelines require agencies to adopt a mitigation monitoring and reporting program that it has made a condition of project approval to mitigate or avoid significant impacts on the environment (CEQA section 21081.6; CEQA Guidelines section 15097). This EIR identifies and presents mitigation measures that would form the basis of such a mitigation and monitoring and reporting program. Any mitigation measures adopted by the City as conditions for approval of the proposed project would be included in the mitigation monitoring and reporting program.

## 1.F Contents and Organization of This EIR

Consistent with CEQA Guidelines sections 15120 to 15132, this EIR describes the proposed project and required approvals; identifies potential environmental impacts of the proposed project, mitigation measures where those impacts are significant, and cumulative adverse impacts to which the proposed project could make a substantial contribution; discusses growth-inducing and significant unavoidable effects of the project; and evaluates alternatives to the proposed project that could avoid or reduce significant impacts while still meeting most of the project’s objectives. Existing land use plans and policies applicable to the proposed project are discussed in the initial study in Appendix A.

This EIR is organized as follows:

- **Summary.** This chapter summarizes the EIR by providing an overview of the proposed project, the environmental impacts that would result from the proposed project, mitigation measures identified to reduce or eliminate the impacts, project alternatives and their comparative environmental effects, and areas of controversy and issues to be resolved.
- **Chapter 1, Introduction.** This chapter provides a summary of the proposed project and project background, includes a discussion of the purpose of the EIR, a discussion of the environmental review process, a summary of the comments received on the scope of the EIR, and a brief outline of the document's organization.
- **Chapter 2, Project Description.** This chapter provides a detailed description of the proposed project, including the project's objectives, the project location, the existing project site's land use characteristics, project components and characteristics, the construction schedule and anticipated activities, and identifies required project approvals.
- **Chapter 3, Environmental Setting, Impacts, and Mitigation Measures.** This chapter provides the air quality and operational noise impact analyses of the proposed project. This chapter contains a description of the environmental setting (or existing conditions), regulatory framework, approach to the analysis, and project-level and cumulative impacts. The air quality section also addresses a technical air quality analysis prepared by Environmental Permitting Specialists (EPS) and submitted by the appellant on November 16, 2020, during the CEQA exemption appeal process.
- **Chapter 4, Alternatives.** This chapter presents and evaluates alternatives to the proposed project, including the required No Project Alternative(s), that could feasibly attain most of the project objectives as well as reduce identified significant adverse impacts of the proposed project. This chapter also compares their environmental effects to those of the proposed project. It also describes alternatives considered but rejected and identifies the environmentally superior alternative. Alternatives evaluated in this chapter include the following:
  - Alternative A1: No Project – Vacant Retail Space
  - Alternative A2: No Project – Future Retail Tenant – No Cold Storage
  - Alternative B: Noise Exposure Reduction Alternative, Taller Cooling Tower on Level 3
- **Chapter 5, Other CEQA Issues.** Pursuant to CEQA Guidelines section 15126.2, this chapter summarizes any growth-inducing impacts that could result from the proposed project, irreversible changes to the environment, and significant and unavoidable environmental impacts. This chapter also presents areas of known controversy and issues to be resolved.
- **Chapter 6, Report Preparers.** This chapter lists the EIR authors and consultants; project sponsor and consultants; and agencies and persons consulted.
- **Appendices.** The following appendices are included in this EIR:
  - Appendix A, Notice of Preparation and Initial Study
  - Appendix B, EIR Scoping Comments
  - Appendix C, Air Quality Analysis Supporting Information
    - Appendix C.1, Response to Appeal of Proposed Project at 2675 Geary Boulevard

## **Chapter 1. Introduction**

### **1.F. Contents and Organization of This EIR**

- Appendix C.2, 2675 Geary Boulevard Update Air Quality Scope of Work
- Appendix C.3, 2675 Geary Boulevard Update Air Quality and Health Risk Assessment Methodology
- Appendix C.4, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results
- Appendix C.5, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results for Worker Receptors
- Appendix D, Transportation Memorandum
- Appendix E, Noise Analysis Supporting Information
  - Appendix E.1, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations (May 27, 2022, revised September 28, 2022)
  - Appendix E.2, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations – Level 4 Measurements
  - Appendix E.3, 2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations



## CHAPTER 2

# PROJECT DESCRIPTION

### 2.A Project Overview

The project sponsor (Whole Foods Market) proposes to renovate an existing approximately 49,825-square-foot, vacant retail space with a new Whole Foods Market grocery store at 2675 Geary Boulevard in San Francisco. The proposed grocery store would total 49,825 square feet,<sup>16</sup> of which approximately 25,030 square feet would comprise the sales floor. The remaining approximately 24,795 square feet would be dedicated to other uses: seating areas, checkout, self-checkout, and back-of-house uses such as offices, restrooms, freezers, kitchens, and storage areas for online orders.<sup>17</sup>

The existing onsite parking lot C would be available for parking for Whole Foods Market customers. Loading and deliveries would occur from an existing onsite, 3,528-square-foot receiving area and adjacent loading dock accessed from O'Farrell Street just east of Anzavista Avenue, via parking lot E. No changes to vehicle parking, bicycle parking, loading, driveway access, or onsite circulation are proposed. In addition, no changes are proposed to the public right-of-way.

The proposed project consists of interior renovations within the existing vacant retail space; replacement of existing heating, ventilation, and air conditioning (HVAC) equipment in the rooftop mechanical penthouse; an approximately 700-square-foot horizontal expansion of the rooftop mechanical penthouse to accommodate the new HVAC equipment; and new exterior signage. The proposed project would not require excavation.

### 2.B Project Sponsor's Objectives

- Re-use an existing vacant retail space to provide a new full-service grocery store.
- Avoid exterior modifications to the site or to the existing building except for necessary replacements of existing heating, ventilation, and air conditioning (HVAC) equipment in the building's mechanical penthouse.
- Provide convenient grocery shopping, with existing parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain.
- Provide the local community with access to a wider range of healthy foods and organic grocery and produce options.
- Comply with the city's general plan, including the priority policies and applicable policies and objectives for grocery stores.
- Minimize negative consequences to the surrounding neighborhoods.

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<sup>16</sup> The building owner/landlord would retain 4,460 square feet of space within the existing building. The future use of this space is unknown at this time, and it is not part of the proposed project.

<sup>17</sup> These areas store products ordered online and collected in store by Whole Foods Market employees for pickup or delivery. Customers can order groceries and other in-store products online through Whole Foods Market or Amazon Prime.

- Provide employment opportunities for city residents.
- Provide opportunities for local suppliers of organic foods.

## 2.C Project Location and Site Characteristics

### 2.C.1 Project Location

The project site is a 49,285-square-foot vacant retail space<sup>18</sup> located on level 3 of the existing approximately 250,840-square-foot City Center shopping center. The project site includes parking lot C on level 3, which contains 117 parking spaces.

City Center is located at the southeast corner of Masonic Avenue and Geary Boulevard in the Western Addition neighborhood of San Francisco (see **Figure 2-1** and **Figure 2-2**, p. 2-4) and occupies the block bounded by Geary Boulevard to the north, Masonic Avenue to the west, O'Farrell Street to the south, and Lyon Street to the east. The southern portion of the City Center parcel (along O'Farrell Street) slopes upward from west to east between Masonic Avenue and Anzavista Avenue, and downward from west to east between Anzavista Avenue and Lyon Street. Both elevation changes are approximately 40 feet. The northern portion of the City Center parcel (along Geary Boulevard) is level between Masonic and Presidio avenues, then slopes downward from west to east between Presidio Avenue and Lyon Street, with an elevation change of approximately 30 feet. As a result, the approximately 250,840 square feet of retail space in City Center is located on five levels. Level 1 contains Target, Ulta, PetSmart, AT&T, Bank of America, and parking lots A and F. Level 2 contains Target, smaller retail spaces, restaurants, PetSmart, and parking lots B and E. Level 3 contains the project site, including parking lot C, and levels 4 and 5 contain the daycare facility and parking lot D. The six separate parking lots (parking lots A through F) are located throughout the City Center shopping center, each with independent access from O'Farrell Street, Geary Boulevard, or Masonic Avenue. The project site is located within the NC-3 (Moderate-Scale Neighborhood Commercial) zoning district and is within the 40-X and 80-X height and bulk districts.

### 2.C.2 Project Characteristics

#### GROCERY STORE

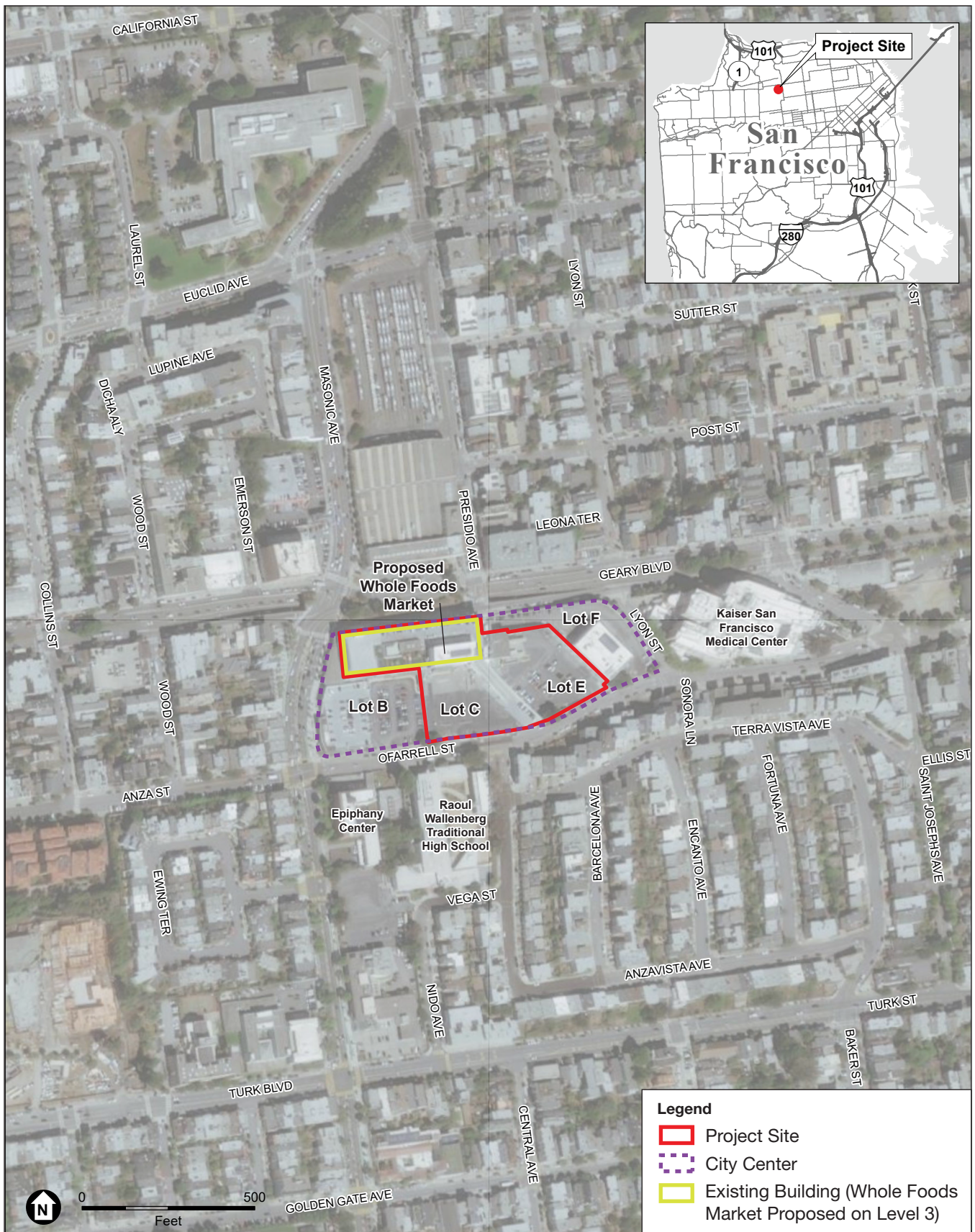
The project sponsor proposes to renovate an existing vacant retail space on level 3 of the City Center shopping center for a new Whole Foods Market grocery store. The proposed project would include a 49,825-square-foot grocery store with a 25,030-square-foot sales floor (see **Figure 2-3**, p. 2-5, and **Figure 2-4**, p. 2-6). The remaining 24,795 square feet would be dedicated to other uses: seating areas, checkout, self-checkout, and back-of-house uses such as offices, restrooms, freezers, kitchens, and storage areas for online orders.<sup>19</sup> The grocery store would sell grocery items, prepared foods, medicine, household products, beverages, and other retail items. The store would have a lounge and seating area with a capacity of 50 people.

The proposed project is expected to employ approximately 200 people, with 35 to 40 employees per shift.

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<sup>18</sup> The building owner/landlord would retain 4,460 square feet of space within the existing building. The future use of this space is unknown at this time, and it is not part of the proposed project.

<sup>19</sup> These areas store products ordered online and collected in store by Whole Foods Market employees for pickup or delivery. Customers can order groceries and other in-store products online through Whole Foods Market or Amazon Prime.



SOURCE: Google, 2021; ESA, 2021

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 2-1**  
**PROJECT LOCATION**





\*North arrow and scale bar are approximate

0 100  
Feet

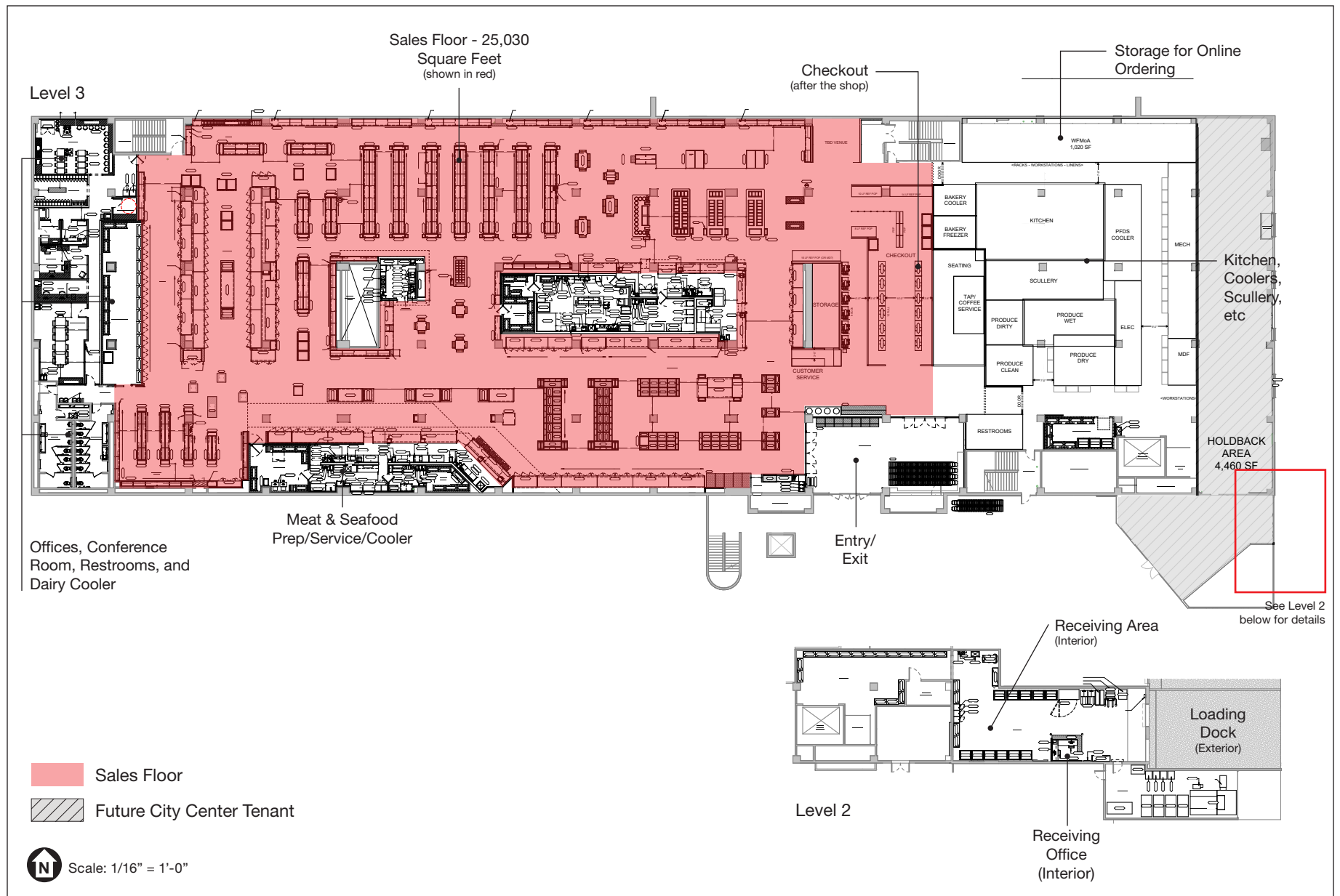
Project Site

Existing Building (Whole Foods Market Proposed on Level 3)

SOURCE: Eagleview 2020

Whole Foods at 2675 Geary Boulevard Project

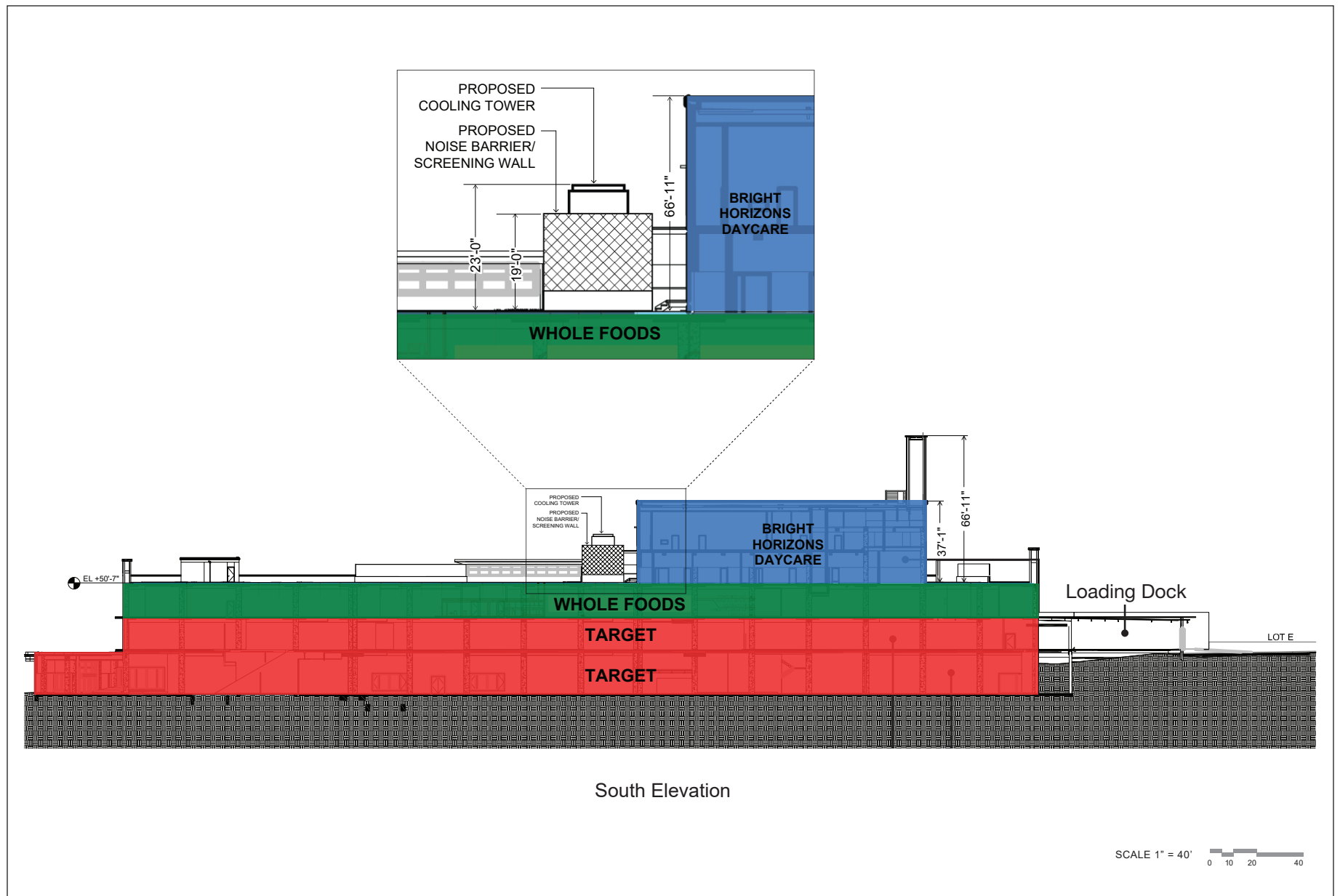
**FIGURE 2-2**  
**EXISTING AND PROPOSED SITE**



SOURCE: BRR Architecture, Inc., 2020

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 2-3**  
**PROPOSED SITE PLAN**



SOURCE: Studioneleven, 2019

2675 Geary Boulevard Project

**FIGURE 2-4**  
**SOUTH ELEVATION**

**Table 2-1** summarizes the characteristics of the proposed project.

**Table 2-1 2675 Geary Boulevard Project Characteristics**

Project Characteristics	Existing	Proposed
Interior area (square feet)	49,825	49,825
Land use	Vacant Retail	Grocery Store
Rooftop mechanical penthouse (square feet)	930	1,630
Hours of loading	—	5 a.m.–3 p.m.
<b>PROPOSED PARKING</b>	<b>NUMBER</b>	
Vehicle parking spaces	117 (Lot C)	117 (Lot C)
Bicycle parking spaces	8 (Lot E)	8 (Lot E)
Americans with Disabilities Act (ADA) parking spaces	1 van ADA; 4 standard ADA	1 van ADA; 4 standard ADA

SOURCE: Whole Foods Market (2021)

The proposed project would also install new Whole Foods Market signage on the exterior of the City Center building along Geary Boulevard, along Masonic Avenue, at the intersection of Lyon Street and Geary Boulevard, and at the intersection of O’Farrell Street and Masonic Avenue. In addition, a pylon with Whole Foods Market signage would be placed in parking lot E near the intersection of O’Farrell Street and Anzavista Avenue.

The proposed project includes replacement of the existing heating, ventilation, and air conditioning (HVAC) equipment and installation of new refrigeration equipment, including a new 23-foot-tall cooling tower, to support the proposed grocery store use. All of this equipment would continue to be located on level 4 of the City Center shopping center, which is on the roof of level 3 of the project site. The new cooling tower would be installed to the east of the existing HVAC equipment and penthouse enclosure (see **Figure 2-5**).

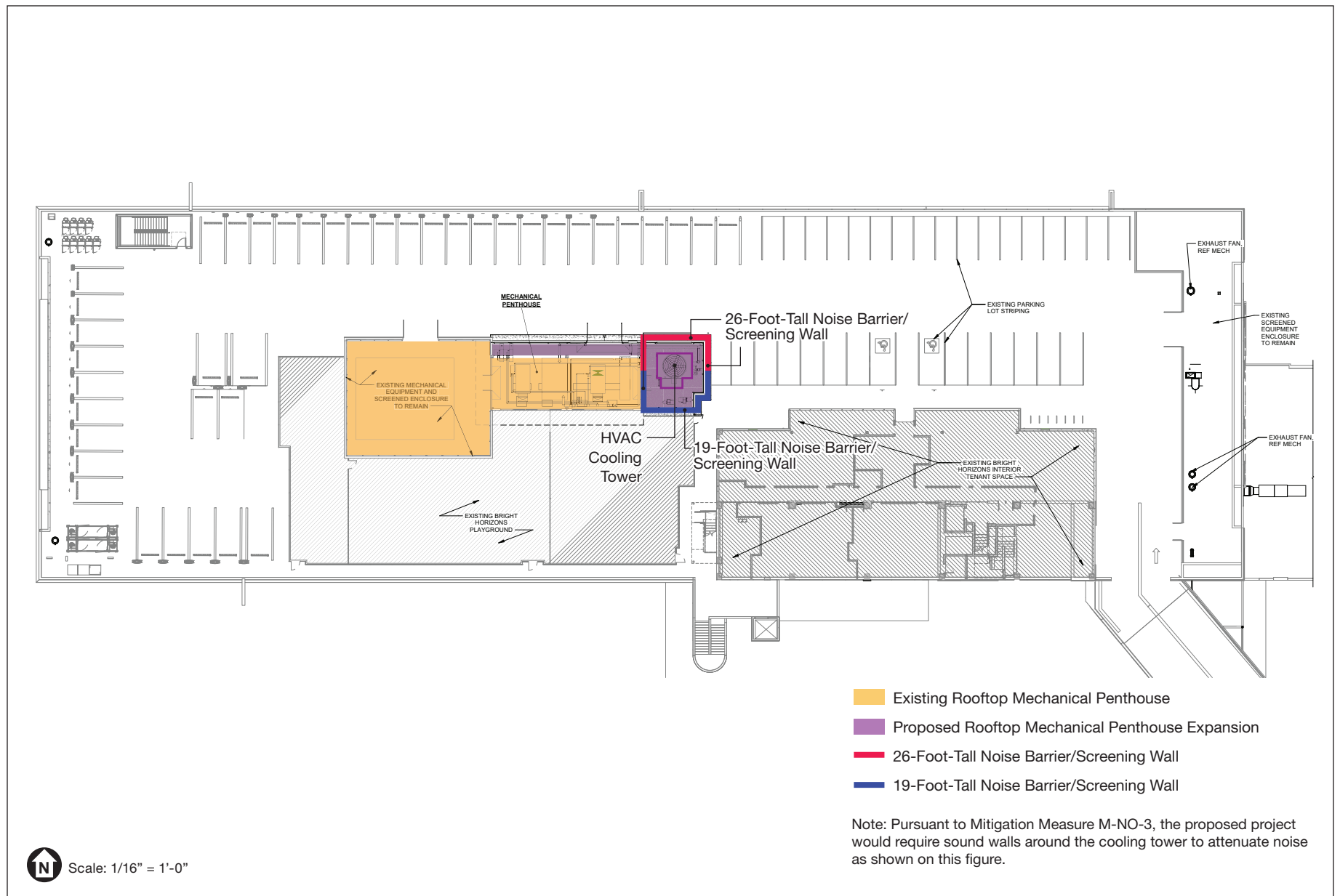
The proposed project would also expand the existing 930-square-foot rooftop mechanical penthouse on level 4 to approximately 1,630 square feet to accommodate new HVAC and refrigeration equipment. The existing 10-foot-tall enclosure wall on the north side would be removed and reconstructed approximately 7 feet farther north; another wall would be constructed approximately 20 feet east of and parallel to the existing east wall. The existing southern enclosure wall would be extended further east to meet the new east wall. All existing and proposed enclosure walls are/would be 10 feet tall.

The area around the new cooling tower would be open-air, or without a roof. The cooling tower would extend above the roofline of the penthouse. All other areas of the rooftop mechanical penthouse would be enclosed with a new roof.

## CIRCULATION, PARKING, AND LOADING

The existing parking lot C on level 3, which contains 117 parking spaces, and the existing eight bicycle parking spaces in lot E (level 2) would be available for Whole Foods Market customers. Vendor deliveries would arrive via Geary Boulevard, Masonic Avenue, and Anza/O’Farrell streets. Outbound vendor or delivery vehicles leave from the loading dock or parking lot and turn onto O’Farrell Street, then onto





SOURCE: BRR Architecture, Inc., 2020

2675 Geary Boulevard Project

**FIGURE 2-5**  
**ROOFTOP MECHANICAL PENTHOUSE CHANGES**

Divisadero Street. No changes to vehicle parking, bicycle parking, loading, driveway access, or onsite circulation are proposed. In addition, no changes are proposed to the public right-of-way.

Freight and commercial loading activities would occur from an existing 3,528-square-foot, onsite receiving area on level 2, accessed from O'Farrell Street via parking lot E (see Figure 2-2, p. 2-4). The receiving area currently includes a four-stall loading dock shared with Target, who occupies the first level, a backstop room, a receiving cooler, a receiving office, a mechanical room, an elevator machine room, two freight elevators, and a dedicated pallet lift to the back-of-house space on level 3. The project sponsor would have exclusive use of two loading stalls that could each accommodate a 65-foot trailer. Deliveries would be received daily between 5 a.m. and 3 p.m.

The proposed project would replace the two existing *dock levelers*<sup>20</sup> and existing overhead doors in the receiving area. The two overhead doors, which are currently operated by chain, would be motorized. The proposed project would also include new lighting, switches, sinks, an eye wash station, walk-in coolers/freezers, and other storage amenities.

### 2.C.3 Project Construction

Construction of the proposed project is anticipated to occur over a 10-month period, beginning in October 2024 and ending in summer 2025. Construction activities would include demolishing interior walls, flooring, and some areas of the ceiling; expanding the rooftop mechanical penthouse and installing rooftop HVAC equipment including rooftop penetrations for venting and to connect the HVAC equipment to ducts; and constructing new interior walls and partitions for restrooms and back-of-house space (employee office, lounge, and locker rooms). Other activities would include reconfiguring the space and installing furniture and equipment to support the grocery store as well as replacing the two dock levelers. Construction staging is anticipated to occur within the existing vacant retail space and/or within parking lot C. Construction would generally occur between 8 a.m. and 4 p.m., in compliance with San Francisco Police Code section 2908. No excavation would be required.

### 2.C.4 Required Project Approvals

The proposed project is subject to review and approval by local agencies. Certification of the final EIR by the San Francisco Planning Commission, which would be appealable to the San Francisco Board of Supervisors, is required before issuance of any other discretionary approval or permits. The proposed project would require approvals from the following agencies, including, but not limited to the following:

#### SAN FRANCISCO PLANNING COMMISSION

- Adoption of findings of consistency with the San Francisco General Plan and priority policies of planning code section 101.1.
- Conditional use authorization to permit formula retail use.

#### SAN FRANCISCO DEPARTMENT OF BUILDING INSPECTION

- Review and approval of building permits.

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<sup>20</sup> Dock levelers bridge the gap and height difference between the dock and the trailer.

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## CHAPTER 3

# ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

## Introduction to the Analysis

This chapter provides a project-level impact analysis of the potentially significant, physical environmental impacts of implementing the proposed project as described in Chapter 2, Project Description. Section 3.A, Air Quality, includes a description of the environmental setting and regulatory framework; and assessment of project air quality impacts (i.e., offsite, onsite, construction-related, operational, direct, and indirect impacts) and cumulative impacts. Section 3.B, Noise, includes a description of the environmental setting and regulatory framework; and assessment of project operational noise impacts (i.e., offsite, onsite, direct, and indirect impacts) and cumulative operational noise impacts.

## Scope of Analysis

### INITIAL STUDY

As described in Chapter 1, Introduction, the planning department determined that an EIR is required for the proposed project in compliance with the California Environmental Quality Act (CEQA) and published a Notice of Preparation (NOP) and initial study (see Appendix A). As part of the preparation for the EIR, the planning department identified resource topics that could be adequately addressed in an initial study. The initial study prepared for this EIR (Appendix A) concluded that many of the physical environmental impacts of the proposed project would result in no impact or less-than-significant impacts, and that a mitigation measure agreed to by the project sponsor and required as a condition of approval would reduce the significant noise impact to a less-than-significant level. CEQA does not require further assessment of a project's less-than-significant impacts or those that can be reduced to less than significant with mitigation; thus, those issues are not included in this chapter.

The initial study determined that the following environmental topics are not applicable to the proposed project or the proposed project would have no impact: aesthetics, land use and planning, population and housing, cultural resources, tribal cultural resources, wind, shadow, recreation, public services, biological resources, geology and soils, hydrology and water quality, mineral resources, agriculture and forestry resources, and wildfire hazards (see initial study Section E.1, No Impact or Not Applicable Topics). As a result, the initial study did not discuss these topics further, except to briefly describe why the proposed project would have no impact on these topics or why they are not applicable to the proposed project.

The initial study also analyzed the following topics and determined that the proposed project would have less than significant impacts or that a mitigation measure agreed to by the project sponsor and required as a condition of approval would reduce the significant impact to a less-than-significant level (the corresponding sections and abbreviations for each relevant resource topic are included):

- Section E.2, Transportation and Circulation (TR)
- Section E.3, Noise (NO)

- Section E.5, Greenhouse Gas Emissions (GG)
- Section E.6, Utilities and Service Systems (UT)
- Section E.7, Hazards and Hazardous Materials (HZ)
- Section E.8, Energy (EN)

Refer to the initial study in Appendix A for a discussion and the impact analysis of the proposed project with respect to these resource topics.

## EIR TOPIC

The initial study stated that the proposed project *may* have a significant air quality impact and that this topic would be analyzed in the EIR. Additionally, as discussed above, following the publication of the NOP and initial study it was determined that the overall height of the proposed cooling tower (including its base) would be 23 feet tall rather than 21 feet, as analyzed in the initial study. This minor change to the proposed project affects the initial study operational noise analysis, requiring further analysis in this EIR. In addition, the cumulative noise analysis has been updated based on revisions to the cumulative projects list in Table 3-1, p. 3-6. As to all other noise subtopics, the initial study analysis remains accurate. As such, this EIR analyzes impacts related to air quality and operational noise, which are addressed in this EIR in Sections 3.A and 3.B, respectively.

The abbreviation for the resource topic used in the naming of impact statements and mitigation measures are shown in parenthesis:

- Section 3.A, Air Quality (AQ)
- Section 3.B, Noise (NO)

## Overall Approach to Impact Analysis

CEQA Guidelines section 15151 describes standards for the preparation of an adequate EIR. The specific standards under section 15151 are listed below:

- An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information that enables them to make a decision that intelligently takes into account environmental consequences of the project.
- An evaluation of the environmental impacts of a project need not be exhaustive; rather, the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible.
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.

In practice, the above points indicate that EIR preparers should adopt a reasonable methodology upon which to estimate impacts. This approach means making reasonable assumptions, using the best information available.

## Organization of this Chapter

The environmental topics analyzed in this chapter includes the following subsections:

- **Introduction.** This subsection provides a brief description of the types of impacts that are analyzed as well as a summary of the impacts that were scoped out in the initial study (e.g., impacts that were determined to result in a less-than-significant impact or no impact), a summary of comments received on the NOP and initial study that relate to that resource topic, and a cross-reference to other related resource topics.
- **Environmental Setting.** This subsection presents a description of existing baseline physical conditions on the project site and in the surroundings at time of issuance of the NOP and initial study, with enough detail and breadth to allow a general understanding of the environmental impacts of the proposed project.
- **Regulatory Framework.** This subsection describes the relevant federal, state, and local regulatory requirements that are directly applicable to the environmental topic being analyzed.
- **Impacts and Mitigation Measures.** This subsection evaluates the potential for the proposed project to result in adverse effects on the physical environment described in the setting. As described in more detail below, this subsection identifies the significance criteria specific to that resource topic, describes the approach to the analysis, and presents the impact evaluation. For impacts determined to be significant, the impact analysis identifies feasible mitigation measures that would avoid or reduce the severity of the identified impact.

The Impacts and Mitigation Measures section is further subdivided into the following subsections.

- **Significance Criteria.** This subsection lists the criteria—specific to each resource topic—used to identify and determine significant environmental effects of the proposed project. Under CEQA, a significant effect is defined as a substantial or potentially substantial adverse change in the environment. The guidelines implementing CEQA direct that this determination be based on scientific and factual data, including the entire record for the project, and not on argument, speculation, or unsubstantiated evidence. The significance criteria used in this Draft EIR are based on planning department guidance used to assess the severity of environmental impacts of the proposed project, and on CEQA guidelines Appendix G, using the procedures set forth in San Francisco Administrative Code chapter 31.10.
- **Approach to Analysis.** This subsection describes the general approach and methodology used to apply the significance thresholds in evaluating the impacts of the proposed project. The methodology for applying significance criteria provides the basis for the impact analysis, which could be either qualitative or quantitative, depending on the specific impact. The methodology identifies the applicable regulatory guidelines, thresholds, standards, or accepted professional practices or protocols to be used to assess construction, operational, and cumulative impacts.
- **Impact Evaluation.** This subsection evaluates the potential for the proposed project to result in significant adverse effects on the existing physical environment. The proposed project's impacts are presented as individually numbered impact statements (shown in boldface type) that address each significance criterion. Each impact statement is keyed to a subject area abbreviation (e.g., AQ for Air Quality) and an impact number (e.g., 1, 2, 3) for a combined alpha-numeric code (e.g., Impact AQ-1, Impact AQ-2, etc.). The impact statement concludes with a significance determination (see descriptions below in Significance Determinations). Following each impact statement is a discussion that provides the

analysis and rationale for the significance determination. Project-specific impacts are distinguished from cumulative impacts, which are described below in the Cumulative Impacts section.

If the impact analysis concludes that an impact is significant, feasible mitigation measure(s) are presented immediately following the impact analysis. CEQA guidelines section 15126.4 directs preparers of an EIR to describe feasible measures that could minimize significant adverse impacts. Mitigation measures are developed to avoid, minimize, rectify, reduce, eliminate, or compensate for an impact resulting from project implementation. CEQA guidelines section 15041 grants authority to the lead agency to require feasible changes in any or all activities involved in a project to substantially lessen or avoid significant effects on the environment.

Feasible mitigation measures have been included in this chapter for specific environmental impacts, where applicable. The measures are indented and are numbered to correspond to the number of the impact analysis. For example, Mitigation Measure AQ-1 would be the first mitigation measure recommended to address Impact AQ-1.

## Significance Determinations

A “significant effect” is defined by CEQA Guidelines section 15382 as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”

The significance criteria used in this EIR are based on the planning department’s guidance regarding the thresholds of significance for assessing the severity of the environmental impacts of the proposed project. The planning department’s guidance is based on CEQA Guidelines Appendix G, with some modifications. The level of significance of the impact is indicated in parentheses at the end of the impact statement based on the following terms:

- **No Impact (NI)** – No adverse physical changes (or impacts) to the environment are expected.
- **Less than Significant (LTS)** – Impact that would not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.
- **Less than Significant with Mitigation (LSM)** – Impact that is reduced to a less-than-significant level through implementation of the identified mitigation measure or measures.
- **Significant and Unavoidable with Mitigation (SUM)** – Impact that exceeds the defined significance criteria and cannot be reduced to less-than-significant levels through compliance with existing local, state, and federal laws and regulations and/or implementation of all feasible mitigation measures.
- **Significant and Unavoidable (SU)** – Impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations and for which there are no feasible mitigation measures.

CEQA Guidelines section 15125 states that the “environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.” The environmental



setting typically includes the existing physical conditions on the project site and vicinity, including projects that are under construction. The environmental analysis then presents existing and existing-plus-project scenarios to identify environmental impacts that would occur from implementation of the proposed project. The analysis in this EIR uses the existing environmental setting as the baseline physical conditions to determine whether an impact is significant.

## Cumulative Impact Analysis

### CEQA REQUIREMENTS FOR CUMULATIVE IMPACT ANALYSIS

Cumulative impacts, as defined in CEQA Guidelines section 15355, refer to two or more individual effects that, when taken together, are “considerable” or that compound or increase other environmental impacts. A cumulative impact from several projects is the change in the environment that would result from the incremental impact of the project added to the impacts of other reasonably foreseeable future projects. Pertinent guidance for cumulative impact analysis is provided in CEQA Guidelines section 15130:

- An EIR shall discuss cumulative impacts of a project when the project’s incremental effect is “cumulatively considerable” (e.g., the incremental effects of an individual project are considerable when viewed in connection with the effects of other reasonably foreseeable projects, including those outside the control of the lead agency, if necessary).
- An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.
- A project’s contribution is less than cumulatively considerable, and thus not significant, if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.
- The discussion of impact severity and likelihood of occurrence need not be as detailed as for effects attributable to the project alone.
- The focus of analysis should be on the cumulative impact to which the identified other projects contribute, rather than on attributes of the other projects that do not contribute to the cumulative impact.

The cumulative impact analysis for each individual resource topic is described in each resource section immediately following the description of the direct project impacts and identified mitigation measures.

### APPROACH TO CUMULATIVE IMPACT ANALYSIS

Two approaches to a cumulative impact analysis are provided in CEQA Guidelines section 15130(b)(1):

- The analysis can be based on a list of present and probable future projects producing related or cumulative impacts; or
- A summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts. The following factors were used to determine an appropriate list of projects to be considered in the near-term cumulative impact analysis:
  - **Similar Environmental Impacts.** A relevant project contributes to effects on resources that are also affected by the proposed project. A relevant future project or plan is defined as one that is “reasonably foreseeable,” such as a proposed project for which an application has been filed with

the approving agency or has approved funding, or an approved plan that amended the land use controls applicable to an adjacent neighborhood.

- **Geographic Scope and Location.** A relevant project is located within the defined geographic scope for the cumulative effect.
- **Timing and Duration of Implementation.** Effects associated with activities for a relevant project (e.g., short-term construction or demolition, or long-term operations) would likely coincide in timing with the effects of the proposed project.

The analyses in this EIR and initial study employ a list-based approach and projections-based approach, depending on the environmental topic analyzed. For instance, the cumulative analysis for transportation and circulation in Appendix A considers individual projects that are anticipated to occur in the project site vicinity that may affect transportation infrastructure also affected by the proposed project (list-based approach). By comparison, the cumulative utilities analysis in Appendix A relies on a projection of overall citywide growth and other reasonably foreseeable projects, which is the typical methodology the planning department applies to analysis of utilities impacts (projections-based approach).

## CUMULATIVE SETTING

Cumulative projects considered in this EIR for environmental topics that use the list-based approach are listed in **Table 3-1** and mapped on **Figure 3-1**, p. 3-8.<sup>21</sup> These cumulative projects are projects that are currently under review by the planning department or a building permit is on file or has been approved by the San Francisco Department of Building Inspection (building department).

**Table 3-1 Cumulative Projects**

Cumulative Project Number	Case No.	Address	Distance from Project Site	Description
1	2019-023105PRJ	2800 Geary Boulevard	0.12 mile	Demolish the existing one-story Firestone Tire Retail and Service Center and construct a 42-unit mixed-use, residential building with 850 square feet of ground floor retail.
2	2018-015786PRJ	2750 Geary Boulevard	0.10 mile	Removal of the existing surface parking to construct a three-story, approximately 33-foot-tall horizontal and vertical addition with 20 one-bedroom dwelling units, and 2 tandem parking spaces on the existing driveway.
3	2015-014028PRJ	3333 California Street	0.28 mile	Demolition of the existing 14,000-square-foot annex building, surface parking lots and ramp structures. Construction of 744 residential units, retail, childcare, open space, and parking uses.

<sup>21</sup> Table 3-1 includes more projects than those identified in Table 2 of the initial study in Appendix A because the search radius for cumulative projects was conservatively expanded for the topics covered in this EIR. The additional projects in Table 3-1 would not alter the cumulative impact determinations in the initial study. The proposed project would not contribute to cumulative impacts for any environmental topic analyzed therein because the proposed project is primarily limited to an interior remodel of an existing vacant space and would not involve ground disturbance.

Cumulative Project Number	Case No.	Address	Distance from Project Site	Description
4	2018-011441PRJ	1846 Grove Street	0.42 mile	The project includes the construction of five single-family dwelling units in the rear yard of an existing property.
5	2015-013965PRJ	1735–1751 Fulton Street	0.39 mile	The project would demolish two existing one-story buildings on two lots and construct a four-story 40-foot-tall mixed-use building, containing approximately 25,000 square feet, including nine dwelling units and 4,340 gross square feet of retail space. The two lots would be merged.
6	2018-007764PRJ	3641 California Street	0.47 mile	The project would demolish the existing two-story building at 3641 California Street and construct a new, mixed-use development with residential over commercial.
7	2007.1347	3657 Sacramento Street	0.46 mile	The project would demolish existing buildings and construct a 40-foot tall, four-story building with a 9-foot-tall elevator penthouse and 4-foot-tall parapet. The building would contain 6,500 square feet of retail, 10,000 square feet of medical office use on the second floor, and 18 dwelling units on the third and fourth floors.
8	2014-002181PRJ	2670 Geary Boulevard	0.05 mile	The project would demolish the existing one-story restaurant (currently vacant) and construct a mixed-use project with 101 residential dwelling units and 1,756 square feet of ground floor commercial uses.
9	2018-006172PRJ	709 Lyon Street	0.29 mile	The project would construct a new five-unit residential building.
10	2018-015169PRJ	1355 Fulton Street	0.47 mile	The project would construct an 8-story vertical addition above the existing building for a 9-story building for residential use and ground floor retail space.
11	2017-016083PRJ	3330 Geary Boulevard	0.40 mile	The project would demolish three existing office buildings and construct a six-story-over-basement, 65-foot-tall mixed-use building including 41 dwelling units.
12	N/A	Geary Corridor Bus Rapid Transit (BRT) Project	0.04 mile	The project would improve Geary Boulevard with safety improvements and faster, more reliable bus service for the 38 Geary and 38R Geary Rapid bus routes. Project improvements include red bus-only lanes, signal priority for buses, expanded rapid and local bus service, and a suite of safety improvements such as sidewalk extensions, accessible curb ramps, and protected left turn signals.

SOURCE: San Francisco Planning Department Pipeline Report, 2022



SOURCE: Esri, 2022; San Francisco Planning Department Pipeline Report, 2020; ESA, 2022

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 3-1**  
**CUMULATIVE PROJECTS**



## 3.A Air Quality

### 3.A.1 Introduction

This section describes the existing air quality conditions in the project area, identifies the regulatory framework for air quality management, and analyzes the potential for the proposed project to affect air quality conditions, both regionally and locally, due to activities that emit criteria and non-criteria air pollutants. It also analyzes the types and quantities of emissions that would be generated on a temporary basis due to construction activities, as well as those generated over the long term due to operation of the proposed project. The analysis determines whether those emissions are significant relative to applicable air quality standards and, if necessary, identifies feasible mitigation measures for significant adverse impacts.

The analysis in this section is based on a review of existing air quality conditions in the region and air quality regulations administered by the United States Environmental Protection Agency (U.S. EPA), the California Air Resources Board (air board), and the Bay Area Air Quality Management District (air district). A quantitative project-specific analysis of criteria air pollutant emissions and local health risks has been conducted for the proposed project. This analysis is based on methodologies identified in the air district's 2017 *California Environmental Quality Act Air Quality Guidelines* (CEQA Air Quality Guidelines), air board methodologies, and the health risk assessment methodology published by the Office of Environmental Health Hazard Assessment (OEHHA) in 2015.<sup>22,23</sup>

As discussed in Chapter 1, Introduction, during the CEQA exemption appeal in 2020, the appellant submitted two letters by Environmental Permitting Specialists (EPS) on November 6 and November 16, 2020. Environmental Science Associates (ESA) prepared an Air Quality Technical Memorandum on October 30, 2020, and Ramboll US Consulting, Inc. (Ramboll) addressed comments in the November 6, 2020, EPS letter in a memorandum to the planning department dated November 13, 2020. Both air quality reports were presented to the Board on November 17, 2020. Based on the Board's 2021 motion, which directed the planning department to further analyze potential air quality impacts to sensitive receptors, a criteria air pollutant and refined health risk assessment was conducted by Ramboll in 2022. The results are included in Appendix C.4 and C.5 and summarized in this section. Additionally, a detailed response to the EPS letter submitted on November 16, 2020, that the planning department was not able to respond to at the November 17, 2020, Board hearing, is included in Appendix C.1. The refined health risk assessment that was conducted as part of this EIR addresses all concerns raised by EPS (refer to Section 3.A.5, Conclusions).

As discussed in Section 1.E.2, NOP and initial study comments, public comments on the NOP and initial study related to air quality concerns have been considered in this EIR. Table 1-1, p. 1-6, provides a summary of air quality comments received and directs the reader to the location where specific information pertaining to the air quality analysis is in this EIR and its accompanying documents. Additionally, in response to a comment received on the NOP and initial study, health risk impacts to workers are analyzed and the results are presented below.

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<sup>22</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines* (May 2017), [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed March 14, 2022.

<sup>23</sup> California Environmental Protection Agency, *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment* (February 2015), <http://oehha.ca.gov/media/downloads/cnr/2015guidancemanual.pdf>, accessed March 14, 2022.

The following reports are related to the air quality analysis included in this EIR and are presented in Appendix C, Air Quality Analysis Supporting Information:

- Appendix C.1, Response to Appeal of Proposed Project at 2675 Geary Boulevard
- Appendix C.2, 2675 Geary Boulevard Update Air Quality Scope of Work
- Appendix C.3, 2675 Geary Boulevard Update Air Quality and Health Risk Assessment Methodology
- Appendix C.4, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results
- Appendix C.5, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results for Worker Receptors

### **3.A.2 Environmental Setting**

The study area for regional air quality impacts is the San Francisco Bay Area air basin (air basin), which includes all of San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa counties, and the southern and southwestern portions, respectively, of Sonoma and Solano counties. The study area for localized air quality impacts is within 3,280 feet (1,000 meters) of City Center at 2675 Geary Boulevard.

The Bay Area Air Quality Management District (air district) is the regional agency responsible for air quality planning in the air basin.

#### **CLIMATE AND METEOROLOGY**

The air basin's moderate climate steers storm tracks away from the region for much of the year, although storms generally affect the region from November through April. San Francisco's proximity to the onshore breezes stimulated by the Pacific Ocean provides for generally good air quality in the project area and the city as a whole.

Annual temperatures in the project area average in the mid-50s (degrees Fahrenheit), ranging from the low 40s on winter mornings to mid-70s during summer afternoons. Daily and seasonal oscillations of temperature are small because of the moderating effects of the San Francisco Bay. In contrast to the steady temperature regime, rainfall is highly variable and confined almost exclusively to the "rainy" period from November through April. Precipitation may vary widely from year to year as a shift in the annual storm track of a few hundred miles can mean the difference between a wet year and drought conditions.

Atmospheric conditions—such as wind speed, wind direction, and air temperature gradients—interact with the physical features of the landscape to influence the movement and dispersal of air pollutants regionally. The proposed project lies within the Peninsula climatological subregion. Marine air traveling through the Golden Gate is a dominant weather factor affecting dispersal of air pollutants within the region. Wind measurements collected on the San Francisco mainland indicate a prevailing wind direction from the west and an average annual wind speed of 10.6 miles per hour.<sup>24</sup> Increased temperatures create the conditions in which ozone formation can increase.

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<sup>24</sup> Western Regional Climate Center, [https://wrcc.dri.edu/Climate/comp\\_table\\_show.php?stype=wind\\_speed\\_avg](https://wrcc.dri.edu/Climate/comp_table_show.php?stype=wind_speed_avg), accessed March 14, 2022.

## AMBIENT AIR QUALITY – CRITERIA AIR POLLUTANTS

As required by the federal Clean Air Act of 1970, U.S. EPA initially identified six criteria air pollutants that are pervasive in urban environments and for which state and federal health-based ambient air quality standards have been established. U.S. EPA calls these pollutants “criteria air pollutants” because the agency has regulated them by developing specific public-health-based and welfare-based criteria as the basis for setting permissible levels. *Ozone*, *carbon monoxide* (CO), *particulate matter* (PM), *nitrogen dioxide* (NO<sub>2</sub>), *sulfur dioxide* (SO<sub>2</sub>), and *lead* are the six criteria air pollutants originally identified by U.S. EPA. Since that time, subsets of particulate matter have been identified for which permissible levels have been established. These include PM of 10 microns in diameter or less (PM<sub>10</sub>) and PM of 2.5 microns in diameter or less (PM<sub>2.5</sub>).

The air district has jurisdiction to regulate air quality within the nine-county air basin. The region’s air quality monitoring network provides information on ambient concentrations of criteria air pollutants at various locations in the San Francisco Bay Area. **Table 3.A-1** presents a 5-year summary for the period 2017 to 2021 of the highest annual criteria air pollutant concentrations collected at the air quality monitoring station closest to the project site, operated and maintained by the air district at 16th and Arkansas streets, approximately 3 miles east of the project site. It also compares measured pollutant concentrations with the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for each of the criteria air pollutants. Concentrations shown in bold indicate an exceedance of the standard for the air basin (see **Table 3.A-2** for the air basin’s attainment status for each criteria air pollutant). Table 3.A-1 does not include SO<sub>2</sub> because monitors are not required for the bay area as the air basin has never been designated as non-attainment for SO<sub>2</sub>.

It should be noted that the ambient air quality standards—both federal and state—are expressed as airborne concentrations of various pollutants. Compliance with the standards is on a regional basis. In the bay area, compliance is demonstrated by ongoing measurements of pollutant concentrations at more than 30 air quality monitoring stations operated by the air district in all nine bay area counties. An exceedance of an ambient air quality standard at any one of the stations counts as a regional exceedance.

The national ambient air quality standards and the California ambient air quality standards have been set at levels considered safe to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly with a margin of safety; and to protect public welfare, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. As explained by the air resources board, “An air quality standard defines the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without any harmful effects on people or the environment.”<sup>25</sup> That is, if a region is in compliance with the ambient air quality standards, its regional air quality can be considered protective of public health. The national ambient air quality standards are statutorily required to be set by U.S. EPA at levels that are “requisite to protect the public health.”<sup>26</sup> Therefore, the closer a region is to attaining a particular national ambient air quality standard, the lower the human health impact is from that pollutant.

A brief description of the health effects of exposure to criteria air pollutants is provided below.

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<sup>25</sup> California Air Resources Board, *California Ambient Air Quality Standards* (last updated August 10, 2017), <https://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm>, accessed March 14, 2022.

<sup>26</sup> 40 U.S. Code chapter 7409, National primary and secondary ambient air quality standards, <https://www.law.cornell.edu/uscode/text/42/7409>, accessed March 14, 2022.



**Table 3.A-1 Summary of San Francisco Air Quality Monitoring Data (2017–2021)**

Pollutant	Most-Stringent Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured <sup>a</sup>				
		2017	2018	2019	2020	2021
OZONE						
Days 1-Hour Standard Exceeded		0	0	1	0	0
Maximum 1-Hour Concentration (ppm)	>0.090 ppm <sup>b</sup>	0.087	0.065	<b>0.091</b>	0.065	0.074
Days 8-Hour Standard Exceeded		0	0	1	0	0
Maximum 8-Hour Concentration (ppm)	>0.070 ppm <sup>c</sup>	0.054	0.049	<b>0.073</b>	0.056	0.054
CARBON MONOXIDE (CO)						
Days 1-Hour Standard Exceeded		0	0	0	0	0
Maximum 1-Hour Concentration (ppm)	>20 ppm <sup>b</sup>	2.5	1.9	1.2	1.8	1.2
Days 8-Hour Standard Exceeded		0	0	0	0	0
Maximum 8-Hour Concentration (ppm)	>9 ppm <sup>b</sup>	1.4	1.6	1.0	1.6	0.9
SUSPENDED PARTICULATES (PM <sub>10</sub> )						
Days 24-Hour Standard Exceeded		2	0	0	2	0
Maximum 24-Hour Concentration (µg/m <sup>3</sup> )	>50 µg/m <sup>3b</sup>	<b>77</b>	43	42	<b>105</b>	33.0
SUSPENDED PARTICULATES (PM <sub>2.5</sub> )						
Days 24-Hour Standard Exceeded		7	14	0	8	0
Maximum 24-Hour Concentration (µg/m <sup>3</sup> )	>35 µg/m <sup>3c</sup>	<b>49.9</b>	<b>177.4</b>	25.4	<b>147.3</b>	22.4
Annual Average (µg/m <sup>3</sup> )	>12 µg/m <sup>3b,c</sup>	9.7	11.7	7.7	10.5	7.1
NITROGEN DIOXIDE (NO <sub>2</sub> )						
Days 1-Hour Standard Exceeded		0	0	0	0	0
Maximum 1-Hour Concentration (ppm)	>0.100 ppm <sup>c</sup>	0.073	0.069	0.061	0.047	0.049

SOURCE: California Air Resource Board, Top 4 Summary for the San Francisco Arkansas Street monitoring site, 2017–2021, <https://www.arb.ca.gov/adam/topfour/topfour1.php>, accessed November 4, 2022.

ABBREVIATIONS:

N/A = data not available; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter

NOTES:

**Bold** values are in excess of applicable standard.

<sup>a</sup> Number of days exceeded is for all days in a given year, except for particulate matter. PM<sub>10</sub> is monitored every 6 days. Therefore, the number of days exceeded is out of approximately 60 annual samples.

<sup>b</sup> State standard, not to be exceeded.

<sup>c</sup> Federal standard, not to be exceeded.

**Table 3.A-2 State and Federal Ambient Air Quality Standards and Attainment Status**

Pollutant	Averaging Time	State (CAAQS <sup>a</sup> )		Federal (NAAQS <sup>b</sup> )	
		Standard	Attainment Status	Standard	Attainment Status
Ozone	1 hour	0.09 ppm	<b>N</b>	NA	— <sup>c</sup>
	8 hours	0.07 ppm	<b>N<sup>d</sup></b>	0.070 ppm	<b>N</b>
Carbon monoxide (CO)	1 hour	20 ppm	A	35 ppm	A
	8 hours	9 ppm	A	9 ppm	A
Nitrogen dioxide (NO <sub>2</sub> )	1 hour	0.18 ppm	A	0.100 ppm	U
	Annual	0.030 ppm	NA	0.053 ppm	A
Sulfur dioxide (SO <sub>2</sub> )	1 hour	0.25 ppm	A	0.075	A
	24 hours	0.04 ppm	A	0.14	A
	Annual	NA	NA	0.03 ppm	A
Particulate matter (PM <sub>10</sub> )	24 hours	50 µg/m <sup>3</sup>	<b>N</b>	150 µg/m <sup>3</sup>	U
	Annual <sup>e</sup>	20 µg/m <sup>3</sup>	<b>N</b>	NA	NA
Fine particulate matter (PM <sub>2.5</sub> )	24 hours	NA	NA	35 µg/m <sup>3</sup>	<b>N</b>
	Annual	12 µg/m <sup>3</sup>	<b>N</b>	12 µg/m <sup>3</sup>	U/A <sup>f</sup>
Sulfates	24 hours	25 µg/m <sup>3</sup>	A	NA	NA
Lead	30 days	1.5 µg/m <sup>3</sup>	A	NA	NA
	Cal. quarter	NA	NA	1.5 µg/m <sup>3</sup>	A
	Rolling 3-month average	NA	NA	0.15 µg/m <sup>3</sup>	A
Hydrogen sulfide	1 hour	0.03 ppm	U	NA	NA
Visibility-reducing particles	8 hours	— <sup>g</sup>	A	NA	NA
Vinyl chloride	24 hours	0.010 ppm (26 µg/m <sup>3</sup> )	No information available	NA	NA

SOURCE: Bay Area Air Quality Management District, *Standards and Attainment Status* (2021), <https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status>, accessed March 14, 2022.

NOTES:

A = Attainment; **N** = Nonattainment; U = Unclassified; NA = Not Applicable, no applicable standard; ppm = parts per million; µg/m<sup>3</sup> = micrograms per cubic meter.

<sup>a</sup> CAAQS = California ambient air quality standards. CAAQS for ozone, CO (except Lake Tahoe), SO<sub>2</sub> (one-hour and 24-hour), NO<sub>2</sub>, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded.

<sup>b</sup> NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The eight-hour ozone standard is attained when the three-year average of the fourth highest daily concentration is 0.08 ppm or less. The 24-hour PM<sub>10</sub> standard is attained when the three-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour PM<sub>2.5</sub> standard is attained when the three-year average of the 98th percentile is less than the standard.

<sup>c</sup> U.S. EPA revoked the national one-hour ozone standard on June 15, 2005.

<sup>d</sup> This state eight-hour ozone standard was approved in April 2005 and became effective in May 2006.

<sup>e</sup> State standard = annual geometric mean; national standard = annual arithmetic mean.

<sup>f</sup> In December 2012, U.S. EPA strengthened the annual PM<sub>2.5</sub> NAAQS from 15 to 12 µg/m<sup>3</sup>. In December 2014, U.S. EPA issued final area designations for the 2012 primary annual PM<sub>2.5</sub> NAAQS. Areas designated “unclassifiable/attainment” must continue to take steps to prevent their air quality from deteriorating to unhealthy levels. The effective date of this standard is April 15, 2015.

<sup>g</sup> Statewide visibility-reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

## OZONE

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG, also sometimes referred to as *volatile organic compounds* [VOCs] by some regulating agencies) and *oxides of nitrogen* (NO<sub>x</sub>) in the presence of sunlight. The main sources of ROG and NO<sub>x</sub>, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the bay area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional criteria air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases, such as asthma, bronchitis, and emphysema.<sup>27</sup>

Table 3.A-1, p. 3.A-4, shows that, according to published data, the most stringent applicable standards (the state one-hour standard of 0.09 parts per million [ppm] and the federal eight-hour standard of 0.07 ppm) were exceeded in San Francisco in 2019.

## CARBON MONOXIDE

CO is an odorless, colorless gas usually formed as a result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal. As shown in Table 3.A-1, p. 3.A-4, the more stringent state CO standards were not exceeded between 2017 and 2021.

## PARTICULATE MATTER (PM<sub>10</sub> AND PM<sub>2.5</sub>)

Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from man-made and natural sources. Particulate matter regulated by the state and federal Clean Air Acts is measured in two size ranges: PM<sub>10</sub> for particles less than 10 microns in diameter, and PM<sub>2.5</sub> for particles less than 2.5 microns in diameter. In the bay area, motor vehicles generate about one-half of the air basin's particulates, through tailpipe emissions as well as brake pad and tire wear. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to the air board, studies in the United States and elsewhere "have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks," and studies of children's health in California have demonstrated that particle pollution "may significantly reduce lung function growth in children." The air board also reports that statewide attainment of particulate matter standards could prevent thousands of premature deaths, lower hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits and avoid hundreds of thousands of episodes of respiratory illness in California. Among the criteria air pollutants that are regulated, particulates appear to represent a serious ongoing health hazard. In 1999, the air district reported in its CEQA Air Quality Guidelines that studies had shown that elevated particulate levels contribute to the death of approximately 200 to 500 people per year in the bay

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<sup>27</sup> California Air Resources Board (CARB), "Ozone and Health," <https://ww2.arb.ca.gov/resources/ozone-and-health>, accessed March 14, 2022.

area. High levels of particulate matter can exacerbate chronic respiratory ailments, such as bronchitis and asthma, and have been associated with increased emergency room visits and hospital admissions.

PM<sub>2.5</sub> is of particular concern because epidemiologic studies have demonstrated that people who live near freeways and high-traffic roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections, and decreased pulmonary function and lung development in children.<sup>28</sup> New studies are also showing that long-term average exposure to PM<sub>2.5</sub> is associated with an increased risk of death from the novel coronavirus 2019 disease (COVID-19) in the United States. One study found that an increase of 1 microgram per cubic meter (µg/m<sup>3</sup>) in PM<sub>2.5</sub> is associated with an 8 percent increase in the COVID-19 death rate.<sup>29</sup> Exposure to wildfire smoke (which includes PM<sub>2.5</sub>) experienced by Californians in 2020 also could have contributed to increased cases of COVID-19.<sup>30</sup> Note that these studies all demonstrate a correlational relationship between exposure to PM<sub>2.5</sub> and increases in the COVID-19 death rate, not a causal relationship.

Table 3.A-1, p. 3.A-4, shows that the state 24-hour PM<sub>10</sub> standard of 50 micrograms per cubic meter (µg/m<sup>3</sup>) was exceeded on four monitored days per year between 2017 and 2021. The federal 24-hour PM<sub>2.5</sub> standard was exceeded on seven days per year in 2017, 14 days per year in 2018, and 8 days per year in 2020. The state annual average standard was not exceeded between 2017 and 2021.

## **NITROGEN DIOXIDE**

NO<sub>2</sub> is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO<sub>2</sub>. Aside from its contribution to ozone formation, NO<sub>2</sub> can increase the risk of acute and chronic respiratory disease and reduce visibility. NO<sub>2</sub> may be visible as a coloring component on high pollution days, especially in conjunction with high ozone levels. In 2010, U.S. EPA implemented a new one-hour NO<sub>2</sub> standard presented in Table 3.A-2, p. 3.A-5. On November 15, 2012, the air board approved a revision to the State Implementation Plan for implementing the 2010 federal NO<sub>2</sub> standards. All areas in California are designated as attainment/unclassified for the federal NO<sub>2</sub> standards.<sup>31</sup> Table 3.A-1, p. 3.A-4, shows the new federal standard was not exceeded at the San Francisco station between 2017 and 2021.

U.S. EPA also has established requirements for a new monitoring network to measure NO<sub>2</sub> concentrations near major roadways in urban areas with a population of 500,000 or more. Sixteen new near-roadway monitoring sites are required in California, three of which are in the bay area. These monitors are located in Berkeley, Oakland, and San Jose. The new monitoring data has not resulted in a need to change area attainment designations.<sup>32</sup>

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<sup>28</sup> San Francisco Department of Public Health, *Assessment and Mitigation of Air Pollutant Health Effect from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review* (May 2008), p. 7.

<sup>29</sup> Wu, X., R. C. Nethery, B. M. Sabath, D. Braun, and F. Dominici, *Exposure to Air Pollution and COVID-19 Mortality in the United States* (April 24, 2020), medRxiv 2020.04.05.20054502, <https://doi.org/10.1101/2020.04.05.20054502>, accessed November 5, 2022. Note that this article has not yet been peer-reviewed.

<sup>30</sup> Xiaodan Zhou, Kevin Josey, Leila Kamareddine, Miah C. Caine, Tianjia Liu, Loretta J. Mickley, Matthew Cooper, and Francesca Dominici, *Excess of COVID-19 Cases and Deaths due to Fine Particulate Matter Exposure During the 2020 Wildfires in the United States* (August 13, 2021), <https://pubmed.ncbi.nlm.nih.gov/34389545/>, accessed November 5, 2022.

<sup>31</sup> California Air Resources Board, *State Implementation Plan Revision for Federal Nitrogen Dioxide Standard Infrastructure Requirements* (October 2012), <http://www.arb.ca.gov/desig/no2isip.pdf>, accessed November 5, 2022.

<sup>32</sup> Bay Area Air Quality Management District, *Ambient Air Monitoring Network*, <https://www.baaqmd.gov/about-air-quality/air-quality-measurement/ambient-air-monitoring-network>, accessed November 5, 2022.

## SULFUR DIOXIDE

SO<sub>2</sub> is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO<sub>2</sub> has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease.<sup>33,34</sup> SO<sub>2</sub> monitoring was terminated at the San Francisco station in 2009 because the state standard for SO<sub>2</sub> is being met in the bay area, and pollutant trends suggest that the air basin will continue to meet this standard for the foreseeable future.

In 2010, U.S. EPA implemented a new one-hour SO<sub>2</sub> standard presented in Table 3.A-2, p. 3.A-5. U.S. EPA has initially designated the air basin as an attainment area for SO<sub>2</sub>. Similar to the new federal standard for NO<sub>2</sub>, U.S. EPA has established requirements for a new monitoring network to measure SO<sub>2</sub> concentrations.<sup>35</sup> No additional SO<sub>2</sub> monitors are required for the bay area because the air basin has never been designated as non-attainment for SO<sub>2</sub> and no State Implementation Plan or maintenance plans have been prepared for SO<sub>2</sub>.<sup>36</sup>

## LEAD

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses and cars), smelters (metal refineries), and manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, which put children at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, U.S. EPA strengthened the national ambient air quality standard for lead by lowering it from 1.5 µg/m<sup>3</sup> to 0.15 µg/m<sup>3</sup>. U.S. EPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas resulting in an increase in 76 monitors nationally.<sup>37</sup> Lead monitoring stations in the bay area are located at Palo Alto Airport, Reid-Hillview Airport (San Jose) and San Carlos Airport. Non-airport locations for lead monitoring are located in Redwood City and San Jose.

## AIR QUALITY INDEX

U.S. EPA developed the Air Quality Index (AQI) scale to make the public health impacts of air pollution concentrations easily understandable. The AQI, much like an air quality “thermometer,” translates daily air pollution concentrations into a number on a scale between 0 and 500. The numbers in the scale are divided into six color-coded ranges, with numbers 0–300 as outlined below:

- **Green (0–50)** indicates “good” air quality. No health impacts are expected when air quality is in the green range.

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<sup>33</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, p. B-2, [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 5, 2022.

<sup>34</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines* (May 2017), p. C-16, [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 5, 2022.

<sup>35</sup> United States Environmental Protection Agency (U.S. EPA), *Fact Sheet: Revisions to the Primary National Ambient Air Quality Standard, Monitoring Network, and Data Reporting Requirements for Sulfur Dioxide* (May 2016), [https://www.epa.gov/sites/default/files/2016-05/documents/final\\_primary\\_naaqs\\_factsheet.pdf](https://www.epa.gov/sites/default/files/2016-05/documents/final_primary_naaqs_factsheet.pdf), accessed November 5, 2022.

<sup>36</sup> Bay Area Air Quality Management District, *2012 Air Monitoring Network Plan* (July 1, 2013), p. 30, [https://www.baaqmd.gov/~media/files/technical-services/2012\\_network\\_plan.pdf?la=en](https://www.baaqmd.gov/~media/files/technical-services/2012_network_plan.pdf?la=en), accessed November 5, 2022.

<sup>37</sup> U.S. EPA, *Fact Sheet: Revisions to Lead Ambient Air Quality Monitoring Requirements* (March 2016), [https://www.epa.gov/sites/default/files/2016-03/documents/leadmonitoring\\_finalrule\\_factsheet.pdf](https://www.epa.gov/sites/default/files/2016-03/documents/leadmonitoring_finalrule_factsheet.pdf), accessed November 5, 2022.

- **Yellow (51–100)** indicates air quality is “moderate.” Unusually sensitive people should consider limited prolonged outdoor exertion.
- **Orange (101–150)** indicates air quality is “unhealthy for sensitive groups.” Active children and adults, and people with respiratory disease, such as asthma, should limit outdoor exertion.
- **Red (151–200)** indicates air quality is “unhealthy.” Active children and adults, and people with respiratory disease, such as asthma should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
- **Purple (201–300)** indicates air quality is “very unhealthy.” Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit outdoor exertion.
- **Maroon (301–500)** indicates air quality is “hazardous” and would trigger health warnings regarding emergency conditions. The entire population is more likely to be affected. Everyone, especially children, should limit outdoor exertion.

The AQI numbers refer to specific amounts of pollution in the air and are based on the federal air quality standards for ozone, CO, NO<sub>2</sub>, SO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. In most cases, the federal standard for these air pollutants corresponds to the number 100 on the AQI chart. If the concentration of any of these pollutants rises above its respective standard, it can be unhealthy for the public. In determining the air quality forecast, local air districts use the anticipated concentration measurements for each of the major pollutants, converts them into AQI numbers, and determines the highest AQI for each zone in a district.

Readings below 100 on the AQI scale would not typically affect the health of the general public (although readings in the moderate range of 50 to 100 may affect unusually sensitive people). Levels above 300 rarely occur in the United States, and readings above 200 have not occurred in the bay area in decades, with the exception of the October 2017 and November 2018 wildfires north of San Francisco and the August/September 2020 complex wildfires that occurred throughout the bay area. Wildfires appear to be occurring with increasing frequency in California and the bay area as the climate changes (since 2000, 17 of the state’s 20 largest wildfires and 16 of the state’s 20 most destructive fires on record have occurred).<sup>38</sup>

As a result, the AQI in several neighboring counties reached the “very unhealthy” and “hazardous” designations, ranging from values of 201 to above 350. During those periods, the air district issued “Spare the Air” alerts and recommended that individuals stay inside with windows closed and refrain from significant outdoor activity.

AQI statistics over recent years indicate that air quality in the bay area is predominantly in the “Good” or “Moderate” categories and healthy on most days for most people. Historical air district data indicate that the air basin experienced air quality in the red level (unhealthy) on 35 days between 2017 and 2021. As shown in **Table 3.A-3**, the air basin had a total of 105 red-level or orange-level (unhealthy or unhealthy for sensitive groups) days between 2017 and 2021. A number of these days are attributable to the increasing frequency of

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<sup>38</sup> CAL FIRE, Stats & Events, Top 20 Largest California Wildfires (April 28, 2021), [https://www.fire.ca.gov/media/4jandlhh/top20\\_acres.pdf](https://www.fire.ca.gov/media/4jandlhh/top20_acres.pdf), accessed November 5, 2022, and Top 20 Most Destructive California Wildfires (April 28, 2021), [https://www.fire.ca.gov/media/t1rdhizr/top20\\_destruction.pdf](https://www.fire.ca.gov/media/t1rdhizr/top20_destruction.pdf), accessed March 14, 2022.



wildfires. This table also shows that the air basin experienced a total of 9 purple level (very unhealthy) days between 2017 and 2021.<sup>39</sup>

**Table 3.A-3 Air Quality Index Statistics for the San Francisco Bay Area Air Basin**

AQI Statistics for air basin	Number of Days by Year				
	2017	2018	2019	2020	2021
Unhealthy for Sensitive Groups (Orange)	9	8	10	34	9
Unhealthy (Red)	9	8	0	17	1
Very Unhealthy (Purple)	3	5	0	1	0

SOURCE: Air district (2022)

## TOXIC AIR CONTAMINANTS AND LOCAL HEALTH RISKS AND HAZARDS

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

Unlike criteria air pollutants, TACs do not have ambient air quality standards but instead are regulated by the air district using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances to provide quantitative estimates of health risks.<sup>40</sup>

Exposure assessment guidance published by the air district in January 2016 adopts the assumption that residences would be exposed to air pollution 24 hours per day, 350 days per year, for 30 years.<sup>41</sup> Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to PM<sub>2.5</sub> are strongly associated with mortality, respiratory diseases, and reductions in lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.<sup>42</sup> In addition to PM<sub>2.5</sub>, diesel particulate matter (DPM), a byproduct of diesel fuel combustion, is also of concern.

<sup>39</sup> Bay Area Air Quality Management District, Monthly Air Quality Index for Coast & Central Bay (2021), <https://www.baaqmd.gov/about-air-quality/current-air-quality/air-monitoring-data/#/aqi-highs?date=2021-12-02&view=monthly>, accessed November 5, 2022.

<sup>40</sup> In general, a health risk assessment is required if the air district concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant of the project that would emit TACs is required to conduct a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

<sup>41</sup> Bay Area Air Quality Management District, *Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines* (January 2016), [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 5, 2022.

<sup>42</sup> San Francisco Department of Public Works, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 6, 2008.



The air board identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.<sup>43</sup> The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

In addition to monitoring criteria air pollutants, both the air district and air board operate TAC monitoring networks in the air basin. These stations measure 10 to 15 TACs, depending on the specific station. The TACs selected for monitoring are those that have traditionally been found in the highest concentrations in ambient air and, therefore, tend to produce the most substantial risk. The nearest air district ambient TAC monitoring station to the proposed project area is the station at 16th and Arkansas streets in San Francisco, approximately 3 miles east of the project site. **Table 3.A-4** shows the most recent reported ambient concentrations of carcinogenic TACs measured at the Arkansas Street station as well as the estimated cancer risks from a lifetime exposure (70 years) to these substances. When TAC measurements at this station are compared to ambient concentrations of various TACs for the bay area as a whole, the cancer risks associated with mean TAC concentrations in San Francisco are similar to those for the region.

**Table 3.A-4 Annual Average Ambient Concentrations of Carcinogenic Toxic Air Contaminants Measured at Air District Monitoring Station in 2019, 10 Arkansas Street, San Francisco**

Substance	Concentration	Cancer Risk per Million
<b>GASEOUS TACS</b>	(PPB)	
Acetaldehyde	0.38	6
Benzene	0.111	29
1,3-Butadiene	0.024	26
Carbon Tetrachloride	0.069	53
Formaldehyde	1.29	27
Perchloroethylene	0.006	0.7
Methylene Chloride	0.078	0.8
Chloroform	0.017	1
Trichloroethylene	0.01	0.3
<b>PARTICULATE TACS</b>	(ng/m <sup>3</sup> )	
Chromium (Hexavalent)	0.043	18
<b>Total Risk for All TACS</b>	<b>N/A</b>	<b>161.8</b>

SOURCE: California Air Resources Board, *Ambient Air Toxics Summary* (2019), <http://www.arb.ca.gov/adam/toxics/sitesubstance.html>, accessed November 5, 2022.

NOTES:

TACs = toxic air contaminants; ppb = part per billion; ng/m<sup>3</sup> = nanograms per cubic meter; N/A= not applicable

<sup>a</sup> Due to COVID-19, limited statewide data was collected and analyzed in 2020; therefore, this table provides data for 2019 instead.<sup>44</sup>

<sup>43</sup> CARB, *Fact Sheet: The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-Fueled Engines* (October 1998), <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/factsht1.pdf>, accessed November 5, 2022.

<sup>44</sup> Anderson, Craig, Manager, Air Quality Data Section, e-mail correspondence with Cheri Velzy, Senior Managing Associate, ESA, July 13, 2022.

## **ROADWAY-RELATED POLLUTANTS**

Motor vehicles are responsible for a large share of air pollution, especially in California. Vehicle tailpipe emissions contain diverse forms of particles and gases and also contribute to particulates by generating road dust and through tire wear. Epidemiologic studies have demonstrated that people living in proximity to freeways or busy roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections and decreased pulmonary function and lung development in children. Air pollution monitoring conducted in conjunction with epidemiologic studies has confirmed that roadway-related health effects vary with modeled exposure to particulate matter and NO<sub>2</sub>. In traffic-related studies, the additional non-cancer health risk attributable to roadway proximity was seen within 1,000 feet of the roadway and was strongest within 300 feet.<sup>45</sup> As a result, the air board recommends that new sensitive land uses not be located within 500 feet of a freeway or urban roads carrying 100,000 vehicles per day.

## **DIESEL PARTICULATE MATTER**

The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources, such as trucks and buses, are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. The air board estimated average bay area cancer risk from exposure to diesel particulate, based on a population-weighted average ambient diesel particulate concentration, at about 480 in one million as of the year 2000, which is much higher than the risk associated with any other toxic air pollutant routinely measured in the region.

In 2000, the air board approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. Subsequent air board regulations apply to new trucks and diesel fuel. With new controls and fuel requirements, 60 trucks built in 2007 would have the same particulate exhaust emissions as one truck built in 1988.<sup>46</sup> The regulations were anticipated to result in an 80 percent decrease in statewide diesel health risk in 2020 as compared with the diesel health risk in 2000. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the federal on-road and non-road diesel engine emission standards for new engines, as well as adoption of regulations for low sulfur fuel in California. Subsequent regulations regarding on-road diesel truck retrofits with particulate matter controls, 2010 or later engine standards, and fleet average emission rate standards to increase engine turnover have resulted in much lower DPM and PM<sub>2.5</sub> emissions over time. It is estimated that these regulations reduced diesel particulate emissions 78 percent from 1990 levels.<sup>47</sup>

Despite notable emission reductions, the air board recommends that proximity to sources of DPM emissions be considered in the siting of new sensitive land uses. The air board notes that these recommendations are advisory and should not be interpreted as defined “buffer zones,” and that local agencies must balance other considerations, including transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, the air board’s position is that infill development, mixed-

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<sup>45</sup> CARB, *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005), <http://www.arb.ca.gov/ch/handbook.pdf>, accessed November 5, 2022.

<sup>46</sup> Pollution Engineering, *New Clean Diesel Fuel Rules Start* (July 2, 2006), [https://sj-admin.s3-us-west-2.amazonaws.com/2006\\_0700-PollutionEngineering\\_NewCleanDiesel.pdf](https://sj-admin.s3-us-west-2.amazonaws.com/2006_0700-PollutionEngineering_NewCleanDiesel.pdf), accessed November 5, 2022.

<sup>47</sup> Pollution Engineering, *New Clean Diesel Fuel Rules Start* (July 2, 2006), [https://sj-admin.s3-us-west-2.amazonaws.com/2006\\_0700-PollutionEngineering\\_NewCleanDiesel.pdf](https://sj-admin.s3-us-west-2.amazonaws.com/2006_0700-PollutionEngineering_NewCleanDiesel.pdf), accessed November 5, 2022.

use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level.<sup>48</sup>

### **SAN FRANCISCO MODELING OF AIR POLLUTANT EXPOSURE ZONES**

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, San Francisco partnered with the air district to inventory and assess air pollution and exposure from mobile, stationary, and area sources within San Francisco. This analysis is known as the 2020 Citywide Health Risk Assessment (2020 Citywide HRA) and is documented in the *San Francisco Citywide Health Risk Assessment: Technical Support Documentation*.<sup>49</sup> The APEZ is based on modeling that was prepared using a 20-meter by 20-meter receptor grid covering the entire city. Areas with poor air quality, referred to as the Air Pollutant Exposure Zone (APEZ), were identified based on the following health-protective criteria, developed in coordination with the air district and San Francisco Department of Public Health: (1) excess cancer risk greater than 100 per one million population from the contribution of emissions from all modeled sources; or (2) cumulative PM<sub>2.5</sub> concentrations greater than 10 µg/m<sup>3</sup>. The APEZ is expanded in certain geographic health vulnerable<sup>50</sup> areas of the city, primarily the Bayview, Tenderloin, and much of the South of Market area, to be more protective, with the areas included in the APEZ based on a standard that is 10 percent more stringent than elsewhere in the city (i.e., areas where the excess cancer risk exceeds 90 in 1 million or the PM<sub>2.5</sub> concentration exceeds 9 µg/m<sup>3</sup>). The APEZ also includes all parcels within 500 feet of a freeway. The proposed project area is within the APEZ; the background cancer risk at the project site ranges from 55 to 230 in 1 million and PM<sub>2.5</sub> concentrations range from 8.7 ug/m<sup>3</sup> to 11 ug/m<sup>3</sup>. The following summarizes the evidence supporting the APEZ criteria followed by a discussion of major sources of emissions within and near the proposed project area.

### **EXCESS CANCER RISK**

The greater than 100 per one million persons exposed (100 excess cancer risk) criterion for defining the APEZ is based on the U.S. EPA's guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.<sup>51</sup> As described by the air district, U.S. EPA considers a cancer risk of 100 per million to be within the "acceptable" range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants rulemaking,<sup>52</sup> U.S. EPA states that it "... strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in one million; and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years." The 100 per 1 million excess cancer risk is also

<sup>48</sup> CARB, *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005), <http://www.arb.ca.gov/ch/handbook.pdf>, accessed November 5, 2022.

<sup>49</sup> San Francisco Department of Public Health, San Francisco Planning Department, and Ramboll, *San Francisco Citywide Health Risk Assessment: Technical Support Documentation*, September 2020, [https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air\\_Pollutant\\_Exposure\\_Zone\\_Technical\\_Documentation\\_2020.pdf](https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf), accessed December 8, 2022.

<sup>50</sup> Health vulnerable areas were identified as those bay area zip codes in the worst quintile of bay area Health Vulnerability Scores. San Francisco Department of Public Health and San Francisco Department of Planning, *San Francisco Citywide Health Risk Assessment: Technical Support Documentation* (February 2020), [https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air\\_Pollutant\\_Exposure\\_Zone\\_Technical\\_Documentation\\_2020.pdf](https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf), accessed November 5, 2022.

<sup>51</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance* (October 2009), p. 67.

<sup>52</sup> 54 *Federal Register* 38044, September 14, 1989.

consistent with the ambient cancer risk in the most pristine portions of the bay area based on the air district's regional modeling.<sup>53</sup>

### **FINE PARTICULATE MATTER**

In April 2011, U.S. EPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*. In this document, U.S. EPA concludes that the then current federal annual PM<sub>2.5</sub> standard of 15 µg/m<sup>3</sup> should be revised to a level within the range of 13 to 11 µg/m<sup>3</sup>, with evidence strongly supporting a standard within the range of 12 to 11 µg/m<sup>3</sup>. In December 2012, U.S. EPA strengthened the annual PM<sub>2.5</sub> standard from 15 to 12 µg/m<sup>3</sup> and issued final area designations based on that standard. The APEZ for San Francisco is based on the health protective PM<sub>2.5</sub> standard of 11 µg/m<sup>3</sup>, as supported by the U.S. EPA's particulate matter policy assessment, although lowered to 10 µg/m<sup>3</sup> to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

### **AIR POLLUTION SOURCES**

Air pollution sources evaluated in the 2020 Citywide HRA and contributing to emissions within and near the proposed project area include primarily stationary source and vehicle emissions on local roadways. The air district's inventory of permitted stationary sources of emissions indicates that there are ten permitted stationary emission sources within a half mile of the proposed project area. These permitted stationary sources are primarily standby generators, gasoline stations, and other facilities such as auto body shops. The Target store located within the same shopping center (City Center) as the project site, the San Francisco Medical Center just east of the proposed project, and Kaiser Permanente on Geary Boulevard at Divisadero Street (further east of the project site) all have permitted stationary sources, which are likely emergency backup generators. Traffic on surrounding streets, primarily Geary Boulevard and Masonic Avenue also contribute to tailpipe emissions from gasoline-powered passenger vehicles and some diesel delivery trucks, in addition to entrained road dust (PM<sub>2.5</sub>).

### **SENSITIVE RECEPTORS**

Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Population subgroups sensitive to the health effects of air pollutants include the elderly and the young, population subgroups with higher rates of respiratory disease such as asthma and chronic obstructive pulmonary disease, and populations with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases such as asthma and chronic obstructive pulmonary disease. The factors responsible for variation in exposure are also often similar to factors associated with greater susceptibility to air quality health effects. For example, lower income residents may be more likely to live in substandard housing and be more likely to live near industrial or roadway sources of air pollution.

The air district currently defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals, and residential areas.<sup>54</sup> Land uses such as schools, children's day care centers, hospitals, and nursing and convalescent homes are considered to be

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<sup>53</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance* (October 2009), p. 67.

<sup>54</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, pp. E-4 and 224, May 2017, [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 4, 2022.

sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Residential areas are considered more sensitive to air quality conditions compared to commercial and industrial areas because people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality conditions. Although workers may not always be considered sensitive receptors because all employers must follow regulations set forth by the Occupational Safety and Health Administration to ensure the health and well-being of their employees,<sup>55</sup> offsite workers (workers near the proposed project) are conservatively considered sensitive receptors in this analysis and address comments received on the NOP requesting an evaluation of the air quality effects of the proposed project on workers near the project site. Sensitive receptors near the project site include the daycare facility on levels 4 and 5 of the City Center property. Residential land uses are located to the west across Masonic Avenue, to the northeast across Geary Boulevard, and to the south across O'Farrell Street. In addition, Raoul Wallenberg High School is located directly south across O'Farrell Street. **Figure 3.A-1** shows the location of the proposed project, the extent of the APEZ in the project vicinity, and the above sensitive receptors. Although not shown on Figure 3.A-1 workers considered in the air quality analysis include employees at other businesses and uses, including, but not limited to, employees occupying other business in City Center (e.g., PetSmart, Target, etc.).

## ODORS

Sources that typically generate odors include wastewater treatment and pumping facilities; landfills, transfer stations, and composting facilities; petroleum refineries, asphalt batch plants, chemical (including fiberglass) manufacturing, and metal smelters; painting and coating operations; rendering plants; coffee roasters and food processing facilities; and animal feed lots and dairies.

### 3.A.3 Regulatory Framework

#### FEDERAL REGULATIONS

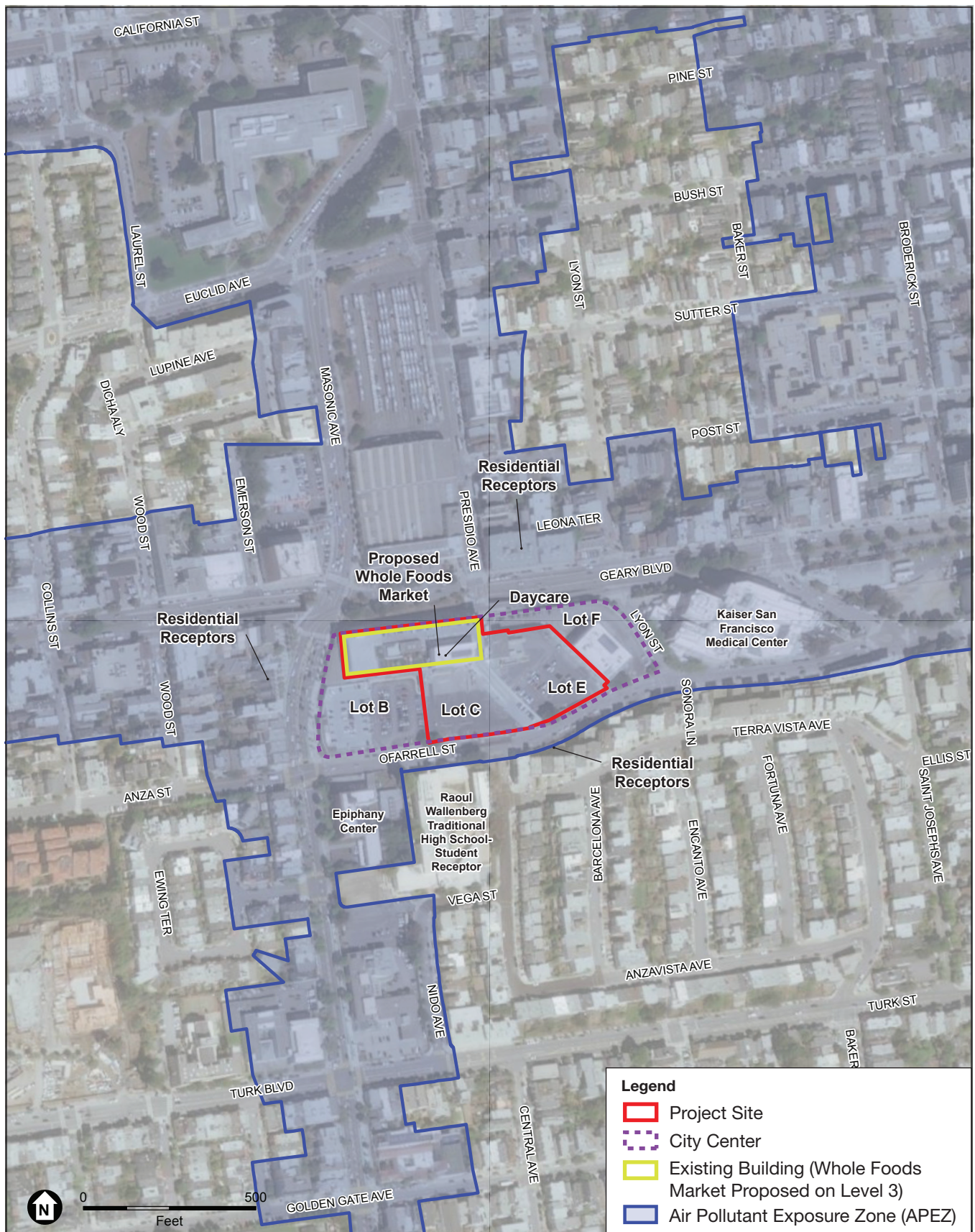
The 1970 Clean Air Act (most recently amended in 1990) requires that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants will be controlled in order to achieve all standards by the deadlines specified in the act. These ambient air quality standards are intended to protect the public health and welfare, and they specify the concentration of pollutants (with an adequate margin of safety) to which the public can be exposed without adverse health effects. They are designed to protect those segments of the public most susceptible to respiratory distress, including asthmatics, the very young, the elderly, people weakened from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards before adverse health effects are observed.

The current attainment status for the air basin, with respect to federal standards, is summarized in Table 3.A-2, p. 3.A-5. In general, the air basin experiences low concentrations of most pollutants when compared to federal standards, except for PM<sub>10</sub> and PM<sub>2.5</sub>, and ozone, for which standards are exceeded periodically (see Table 3.A-1, p. 3.A-4).

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<sup>55</sup> Bay Area Air Quality Management District, Recommended Methods for Screening and Modeling Local Risks and Hazards, May 2011, p. 12.





SOURCE: San Francisco Planning Department, 2020

Whole Foods at 2675 Geary Boulevard Project

In June 2004, the air basin was designated as a marginal nonattainment area for the national 8-hour ozone standard.<sup>56</sup> U.S. EPA lowered the national 8-hour ozone standard from 0.80 to 0.75 parts per million (ppm) effective May 27, 2008. In April 2012, U.S. EPA designated the bay area as a marginal nonattainment<sup>57</sup> region for the 0.75 ppm ozone standard established in 2008.<sup>58</sup> The air basin is in attainment for other criteria air pollutants, with the exception of the 24-hour standards for PM<sub>10</sub> and PM<sub>2.5</sub>, for which the bay area is designated as “Unclassified” and non-attainment, respectively. “Unclassified” is defined by the Clean Air Act as any area that cannot be classified, on the basis of available information, as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. The air basin is designated as an attainment area with respect to the federal annual average PM<sub>2.5</sub> standard.

## STATE REGULATIONS

### **CALIFORNIA CLEAN AIR ACT**

Although the federal Clean Air Act established national ambient air quality standards, individual states retained the option to adopt more stringent standards and to include other pollution sources. California had already established its own air quality standards when the federal standards were established, and because of the unique meteorological challenges in California, there are many differences between the state and national ambient air quality standards, as shown in Table 3.A-2, p. 3.A-5. California ambient standards tend to be at least as protective as national ambient standards and are often more stringent.

In 1988, California passed the California Clean Air Act (California Health and Safety Code section 39600 et seq.), which, like its federal counterpart, called for the designation of areas as attainment or nonattainment, but based on state ambient air quality standards rather than the federal standards. As indicated in Table 3.A-2, p. 3.A-5, the air basin is designated as “nonattainment” for state ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> standards. The air basin is designated as “attainment” for other pollutants.

### **TOXIC AIR CONTAMINANTS**

In 2005, the air board approved a regulatory measure to reduce emissions of toxic and criteria air pollutants by limiting the idling of new heavy-duty diesel vehicles. The regulations generally limit idling of commercial motor vehicles (including buses and trucks) within 100 feet of a school or residential area for more than 5 consecutive minutes or periods aggregating more than 5 minutes in any one hour. Buses or vehicles also must turn off their engines upon stopping at a school and must not turn on their engines more than 30 seconds before beginning to depart from a school. Also, Senate Bill 352 was adopted in 2003 and limits locating public schools within 500 feet of a freeway or busy traffic corridor.

### **ON-ROAD DIESEL TRUCKS AND OFF-ROAD DIESEL EQUIPMENT**

The air board has also adopted rules for new diesel trucks and for off-road diesel equipment. Along with rules adopted by U.S. EPA, these regulations have resulted in substantially more stringent emissions standards for new diesel trucks and new off-road diesel equipment, such as construction vehicles. Effective

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<sup>56</sup> U.S. EPA, Area Designations for 1997 Ground-Level Ozone Standards, Ozone & Health – A Timeline, <https://archive.epa.gov/ozonedesignations/web/html/timeline.html>, accessed November 5, 2022.

<sup>57</sup> “Marginal nonattainment area” refers to those areas where the fourth highest reading over any 24-hour period in the past 3 years exceeds the 8-hour national ambient air quality standard for ozone at concentrations of between 0.076 and 0.086 ppm.

<sup>58</sup> U.S. EPA, 2008 Ground-level Ozone Standards — Region 9 Final Designations (April 2012), <https://archive.epa.gov/ozonedesignations/web/html/region9f.html>, accessed November 5, 2022.



January 2011, both U.S. EPA and air board adopted so-called Interim Tier 4 standards for new equipment with diesel engines of 175 hp or greater. The interim Tier 4 emissions standards for particulate matter are about 85 percent more restrictive than previous particulate matter emissions standards (Tier 2 or Tier 3, depending on the size of the engine<sup>59</sup>) for these larger off-road engines. As a result, use of engines that meet the interim Tier 4 standards would reduce diesel exhaust emissions of particulate matter by approximately 85 percent, compared to new engines produced under the previous standards. Tier 4 Final standards are required for new off-road engines, depending on engine size, for all model years starting in 2014 or 2015. Compared to Tier 4 Interim standards, Tier 4 Final standards are about 80 percent more restrictive for NOx emissions and 30 percent more restrictive for particulate matter emissions. As a result, use of engines that meet the Tier 4 Final standards would reduce exhaust emissions of NOx by approximately 80 percent and reduce diesel exhaust emissions of particulate matter by approximately 30 percent compared to new engines produced under Tier 4 Interim standards.<sup>60</sup>

Tier 2 or Tier 3 engines, for larger equipment manufactured since 2006, can achieve generally the same reduction in particulate matter emissions by retrofitting and installing a diesel particulate filter (a certified Level 3 Verified Diesel Emissions Control System). Beginning in 2014, air board regulations required off-road equipment fleets to begin gradually replacing older engines with newer, cleaner engines; installing exhaust filters on the remaining older engines; or implementing some combination of the two to achieve fleet-wide emissions reductions. Because only a certain percentage of each fleet's engines must be replaced or retrofitted on an annual or periodic basis to achieve the required emissions reductions, and because fleet turnover associated with heavy-duty off-road equipment takes many years, the full effect of the regulations regarding emissions reductions is not anticipated to be realized until sometime between 2020 and 2030.<sup>61</sup>

Regarding the equipment already in use, in 2007, the air board adopted rules for in-use off-road diesel vehicles, including construction equipment. The rules limit idling to five minutes, require a written idling policy for larger vehicle fleets, and require fleet operators to provide information regarding their engines to the air board and label vehicles with a board-issued vehicle identification number. The off-road rules also require diesel engines in existing equipment to be retrofitted or replaced. This "repowering" was originally to begin in 2010 (for the largest fleets). However, in 2010, the air resources board delayed the start of repowering to 2014 for large fleets, 2017 for medium-size fleets, and 2019 for small fleets.<sup>62</sup> The air board stated that the delayed implementation was justified because the 2008 recession had dramatically reduced emissions. Also, the air board found that the data on which the original rule was based had overestimated emissions. According to the air board, under the revised rules, DPM emissions from off-road equipment will decrease by more than 40 percent (from 2010 levels) by 2020; by 2030, they will decrease by more than 75 percent.<sup>63</sup>

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<sup>59</sup> For most construction equipment other than that with extremely powerful engines (greater than 750 hp), Tier 2 and Tier 3 emissions standards are the same with respect to particulate matter. Therefore, cancer risk from DPM—a subset of all particulate matter—is essentially the same for Tier 2 and Tier 3 engines.

<sup>60</sup> California Air Resources Board, *Non-road Diesel Engine Certification Tier Chart*, <https://ww2.arb.ca.gov/resources/documents/non-road-diesel-engine-certification-tier-chart>, accessed November 5, 2022.

<sup>61</sup> California Air Resources Board, *2017 Off-Road Diesel Emission Factor Update for NOx and Particulate Matter*, [https://ww3.arb.ca.gov/msei/ordiesel/ordas\\_ef\\_fcf\\_2017.pdf](https://ww3.arb.ca.gov/msei/ordiesel/ordas_ef_fcf_2017.pdf), accessed November 5, 2022.

<sup>62</sup> Fleet size is based on total horsepower. Large fleets are those with more than 5,000 horsepower. Medium fleets have 2,501 to 5,000 horsepower, and small fleets have less than 2,500 horsepower.

<sup>63</sup> California Air Resources Board, *Staff Report: Initial Statement of Reasons for Proposed Rulemaking: Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements* (October 2010), p. 44, <http://www.arb.ca.gov/regact/2010/offroadlsi10/offroadisor.pdf>, accessed November 5, 2022.

## **TRANSPORT REFRIGERATION UNITS**

The air resources board is developing requirements to transition diesel-powered transport refrigeration units (TRUs) to zero-emission technology in two phases. Part 1 consists of amendments to the TRU air toxic control measure, which the air resources board approved at its February 2022 meeting. The amendments include requirements for the transition of diesel-powered truck TRUs to zero-emission, a particulate matter emission standard for newly-manufactured non-truck TRUs,<sup>64</sup> lower global warming potential refrigerant requirements, facility registration and reporting, expanded TRU reporting and labeling, and fees. The air resources board staff are assessing zero-emission options for non-truck TRUs and plan to take a second rulemaking (Part 2) to the board for consideration in 2025.<sup>65</sup>

## **REGIONAL REGULATIONS**

### **BAY AREA AIR QUALITY PLANNING**

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM<sub>10</sub> standard).

The air district's *2017 Clean Air Plan: Spare the Air, Cool the Climate* was adopted on April 19, 2017 by the air district in cooperation with the Metropolitan Transportation Commission, the San Francisco Bay Conservation and Development Commission, and the Association of Bay Area Governments to provide a regional strategy to improve bay area air quality and meet public health goals.<sup>66</sup> The control strategy described in the 2017 Clean Air Plan includes a wide range of control measures designed to reduce emissions and lower ambient concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce greenhouse gas (GHG) emissions to protect the climate.

The 2017 Clean Air Plan addresses four categories of pollutants: ground-level ozone and its key precursors, ROG and NO<sub>x</sub>; PM, primarily PM<sub>2.5</sub>, and precursors to secondary PM<sub>2.5</sub>; air toxics; and GHG emissions. The control measures are categorized based on the economic sector framework including stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water sectors.

The air district is the regional agency with jurisdiction over the nine-county region located in the air basin. The Association of Bay Area Governments, the Metropolitan Transportation Commission, county transportation agencies, cities and counties, and various non-governmental organizations also participate in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs. The air district is responsible for attaining and/or maintaining air quality in the region within federal and state air quality standards. Specifically, the air district has the responsibility to monitor ambient air pollutant levels throughout the region and to develop and implement strategies to attain the applicable federal and state standards. The air district has permit authority over most types of stationary emission sources and can require stationary sources to obtain permits, and can impose emission limits, set fuel or material specifications,

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<sup>64</sup> Truck TRUs are mounted on trucks, while non-truck TRUs are placed on trailers, shipping containers, or railcars.

<sup>65</sup> California Air Resources Board, New Transport Refrigeration Unit Regulation in Development, <https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit/new-transport-refrigeration-unit-regulation>, accessed November 5, 2022.

<sup>66</sup> Bay Area Air Quality Management District, *2017 Clean Air Plan: Spare the Air, Cool the Climate* (April 19, 2017), [attachment-a -proposed-final-cap-vol-1-pdf.pdf \(baaqmd.gov\)](https://www.baaqmd.gov/attachment-a-proposed-final-cap-vol-1-pdf.pdf), accessed November 5, 2022.

or establish operational limits to reduce air emissions. The air district also regulates new or expanding stationary sources of TACs and requires air toxic control measures for many sources emitting TACs.

### ***BAY AREA AIR QUALITY MANAGEMENT DISTRICT***

The air district regulates stationary-source emissions of criteria air pollutants and TACs through Rule 2-1 (General Permit Requirements), Rule 2-2 (New Source Review), and Rule 2-5 (New Source Review of Toxic Air Contaminants). Under these rules, all stationary sources that have the potential to emit TACs above a certain level are required to obtain permits from the air district. These rules provide guidance for the review of new and modified stationary sources of TAC emissions, including evaluation of health risks and potential mitigation measures. Air district Rule 2-1-128.4 exempts from permits water cooling towers not used for evaporative cooling of process water, such as the proposed project's cooling tower.

### **LOCAL REGULATIONS**

The city's construction dust control ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust, and the best management practices employed in compliance with the ordinance is an effective strategy for controlling construction-related fugitive dust. The ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or expose or disturb more than 10 cubic yards, or 500 square feet, of soil comply with specified dust control measures, whether or not the activity requires a permit from the building department. The construction dust control ordinance is not applicable to the proposed project because the proposed project does not include exterior demolition or excavation.

The above citywide health risk modeling is referenced in the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, or health code article 38 (Ordinance No. 224-14, effective December 8, 2014) (article 38). The purpose of article 38 is to protect the public health and welfare by establishing an air pollutant exposure zone and imposing an enhanced ventilation requirement for all urban infill sensitive use development within that zone. Article 38 is not applicable to the project because it does not include the citing of new sensitive receptors, as defined in article 38.

### ***SAN FRANCISCO GENERAL PLAN AIR QUALITY ELEMENT***

The San Francisco General Plan (general plan) Air Quality Element includes the following objectives:

- **Objective 1:** Adhere to state and federal air quality standards and regional programs.
- **Objective 2:** Reduce mobile sources of air pollution through implementation of the Transportation Element of the General Plan.
- **Objective 3:** Decrease the air quality impacts of development by coordination of land use and transportation decisions.
- **Objective 4:** Improve air quality by increasing public awareness regarding the negative health effects of pollutants generated by stationary and mobile sources.
- **Objective 5:** Minimize particulate matter emissions from road and construction sites.
- **Objective 6:** Link the positive effects of energy conservation and waste management to emission reductions.

### 3.A.4 Impacts and Mitigation Measures

#### SIGNIFICANCE CRITERIA

This section provides the impact analysis related to air quality for the proposed project. The following criteria were used to determine whether the proposed project would result in a significant impact related to air quality. The proposed project would have a significant effect related to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria air pollutant for which the proposed project region is in nonattainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations; or
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

#### APPROACH TO ANALYSIS

The project sponsor proposes to renovate a vacant retail space formerly occupied by Best Buy, above an existing Target store within the City Center shopping center. The proposed project would consist of a 49,825-square-foot grocery store with a 25,030-square-foot sales floor, as well as 24,975 square feet for other uses, including seating areas; checkout; self-checkout; and back-of-house uses such as offices, restrooms, freezers, kitchens, and storage areas for online orders. The store would have a lounge and seating area with capacity to seat up to 50 people. Construction of the proposed project would be limited to interior renovations within the existing vacant retail space, replacement of existing heating, ventilation, and air conditioning (HVAC) equipment in the mechanical penthouse, an approximately 700-square-foot horizontal expansion of the rooftop penthouse to accommodate the new HVAC equipment, and new exterior signage. The proposed project would not require changes to the existing parking area or roadways. The existing 117 vehicle parking spaces accessed from O'Farrell Street would be available for Whole Foods customers. Loading and deliveries would occur from an existing loading dock accessible via O'Farrell Street, between Anzavista Avenue and Lyon Street.

The proposed project would increase emissions related to the construction and operational activities of the Whole Foods Market grocery store. This section describes the methods used to evaluate the proposed project's impacts related to consistency with the Clean Air Plan, emissions of regional criteria air pollutants for which the area is in non-attainment, and local health risks and hazards.

#### AIR QUALITY PLAN

The most recently adopted air quality plan for the air basin is the *2017 Clean Air Plan: Spare the Air, Cool the Climate*.<sup>67</sup> Consistency with the Clean Air Plan can be determined if the proposed project supports the primary goals of the plan, includes applicable control measures from the plan, and would not disrupt or hinder implementation of any plan control measures. Consistency with the Clean Air Plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an applicable air quality plan, the first bulleted significance criterion identified above. This analysis is presented in Impact AQ-1.

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<sup>67</sup> Bay Area Air Quality Management District, *2017 Clean Air Plan: Spare the Air, Cool the Climate* (April 19, 2017), [attachment-a -proposed-final-cap-vol-1-pdf.pdf \(baaqmd.gov\)](https://www.baaqmd.gov/attachment-a-proposed-final-cap-vol-1-pdf.pdf), accessed November 5, 2022.

## REGIONAL CRITERIA AIR POLLUTANTS

As described above under Regulatory Framework, the air basin experiences low concentrations of most pollutants when compared to federal or state standards and is designated as either in attainment or unclassified for most criteria air pollutants, with the exception of ozone, PM<sub>2.5</sub>, and PM<sub>10</sub>, for which the air basin is designated as non-attainment for either the state or federal standards. Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NOx). For this reason, the air district has identified criteria air pollutant significance thresholds for ROG, NOx, PM<sub>2.5</sub>, and PM<sub>10</sub>.

By definition, regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in nonattainment of air quality standards. Instead, a project's individual emissions are considered to contribute to the existing, cumulative air quality conditions. If a project's contribution to cumulative air quality conditions is considerable, then the project's impact on air quality would be considered significant.<sup>68</sup>

**Table 3.A-5** identifies criteria air pollutant significance thresholds adopted by the air district followed by a discussion of proposed project sources of criteria air pollutants and analysis methods. Projects that would result in criteria air pollutant emissions below these significance thresholds would not result in a cumulatively considerable net increase in non-attainment criteria air pollutants within the air basin, the second bulleted significance criterion identified above.

**Table 3.A-5 Criteria Air Pollutants Significance Thresholds**

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual (tons/year)
ROG	54	54	10
NO <sub>x</sub>	54	54	10
PM <sub>10</sub>	82 (exhaust)	82	15
PM <sub>2.5</sub>	54 (exhaust)	54	10
Fugitive Dust	Construction Dust Ordinance or other Best Management Practices	Not Applicable	

SOURCE: Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines* (May 2017)

As explained by the air district in its 2009 report justifying the above criteria air pollutant significance thresholds, the thresholds for the ozone precursors ROG and NOx are tied to the air district's offset requirements for ozone precursors, based on the fact that the bay area is not in attainment with the federal ozone standard. Therefore, such an approach is appropriate "to prevent further deterioration of ambient air quality and thus has nexus and proportionality to prevention of a regionally cumulative significant impact (e.g., worsened status of nonattainment)."<sup>69</sup> As discussed on p. 3.A-3, the ambient air quality standards have been established by developing specific public-health-based and welfare-based criteria as the basis for setting permissible levels. Therefore, attainment can be considered protective of public health, thereby providing a

<sup>68</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017.

<sup>69</sup> Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, pp. D-47.

strong link between a mass emission threshold and avoidance of health effects. For PM<sub>10</sub> and PM<sub>2.5</sub>, the air district established significance thresholds based on the federal New Source Review program for new stationary sources of pollution, which contains stricter thresholds than the air district's offset program for these pollutants. "These thresholds represent the emission levels above which a project's individual emissions would result in a considerable adverse contribution to the [San Francisco Bay Area Air Basin]'s existing air quality conditions." As with ROG and NO<sub>x</sub>, these thresholds likewise provide a connection between a mass emission threshold and avoidance of health effects. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

Fugitive dust emissions from land use development projects are primarily associated with construction activities. The proposed project does not include exterior demolition or excavation and therefore would not generate fugitive dust emissions, would not be subject to San Francisco's Construction Dust Control Ordinance, and analysis of fugitive dust emissions is not applicable.

A quantitative analysis of the proposed project's criteria air pollutant emissions was conducted and is presented in Impact AQ-2. The following summarizes the methodology used to evaluate the proposed project's criteria air pollutant and TAC emissions.

### **CONSTRUCTION ACTIVITIES AND EMISSIONS**

Construction of the proposed project has the potential to create air quality impacts through the use of heavy-duty off-road construction equipment (a crane), construction workers' vehicle trips, and vendor truck trips. Construction criteria air pollutant and TAC emissions were estimated using CalEEMod version 2020.4.0 or equivalent methodology as described below. CalEEMod was developed in collaboration with California's air districts and is recommended by the air district for evaluating projects' criteria pollutant emissions.<sup>70</sup>

### **OFF-ROAD EQUIPMENT**

Construction criteria air pollutant and TAC emissions were based on project-specific data requested by the planning department and provided by the project sponsor (Whole Foods Market), including a construction equipment list, a construction schedule, and site map. The only off-road diesel equipment anticipated during construction would be a crane for lifting HVAC equipment onto the roof. No excavation or earthmoving activities are anticipated that would require other off-road construction equipment or result in fugitive dust emissions.

### **ON-ROAD MOBILE SOURCES**

On-road mobile sources include vehicle trips associated with construction workers and vendors, which include incidental hauling trips for material delivery and disposal.<sup>71</sup> To quantify on-road construction criteria air pollutant and TAC emissions, emission factors for on-road mobile sources were obtained from the air board EMFAC2021 on-road emissions model, as CalEEMod incorporates an older version of the air board on-road emission factor model, EMFAC. Consistent with CalEEMod methodology, it was assumed that worker trips are 50 percent Light-Duty Auto (LDA), 25 percent Light-Duty Truck 1 (LDT1) and 25 percent LDT2 vehicle classes. Vendor trips are assumed to be heavy-heavy duty trucks (HHDT) and medium-heavy duty trucks

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<sup>70</sup> Bay Area Air Quality Management District, *Tools and Methodologies* (2012), <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools>, accessed November 5, 2022.

<sup>71</sup> Renk, Jennifer, Partner, Sheppard Mullin, e-mail correspondence with Elliott Schwimmer, Managing Associate, Environmental Science Associates (January 10, 2022). The number of construction trips was estimated by the project sponsor to be 80 one-way trips.



(MHDT). Vehicle emission factors for the year 2024 are used for this analysis as this is assumed to be the earliest year when construction would occur.

### **ARCHITECTURAL COATING**

Emissions from architectural coatings were estimated using CalEEMod. Architectural coating emissions were based on CalEEMod default values of architectural coatings per square footage, based on the proposed square footage of the grocery store and expansion of the rooftop mechanical penthouse. Emissions from architectural coating during project construction assume compliance with air district paint VOC regulations.

### **OPERATIONAL ACTIVITIES AND EMISSIONS**

While City Center was constructed in 1961 and has been occupied by numerous tenants over the years, with Best Buy occupying the project site up until 2017, the existing tenant space has been vacant for several years. Therefore, the analysis assumes no activity at the project site currently generates emissions. Thus, for purposes of a “worst-case” analysis, all operational criteria air pollutant and TAC emissions from the proposed project are considered net new emissions. Sources of operational emissions from the proposed project include on-road delivery, worker, and customer vehicles, energy use, and area sources.<sup>72</sup> As stated in Section 2.C.3, Project Construction, p. 2-9, the proposed project is anticipated to be operational by 2025; therefore, operational emissions would begin in the year 2025. Operational emissions occurring beyond 2025 would likely be increasingly lower due to reductions in vehicle emissions because of vehicle turnover and increasingly stringent regulatory requirements on newer vehicles.<sup>73</sup>

### **OPERATIONAL ON-ROAD MOBILE SOURCES**

On-road mobile sources include vehicle trips associated with customers, employees, and vendor deliveries. Vehicles emit TACs and criteria air pollutants through exhaust, tire wear, brake wear, and fugitive dust (sometimes referred to as resuspended road dust). In addition, gasoline powered vehicles emit criteria air pollutants and TACs through fuel evaporation. The analysis used vehicle trip generation, truck loading demand, and vehicle trip distance information from the transportation technical information prepared for the proposed project, which is included in the initial study in Appendix A.

Vehicle emissions modeling for operational impacts from the proposed project starting in 2025 was conducted using EMFAC2021. The vehicle mix assumes customer and employee trips are 50 percent Light-Duty Auto (LDA), 25 percent Light-Duty Truck 1 (LDT1), and 25 percent LDT2 vehicle classes. The transportation analysis includes estimates of vehicle types for vendor trips, including refrigerated and non-refrigerated trucks, which are assumed to be heavy-heavy-duty trucks (HHDT) and medium-heavy duty trucks (MHDT).

Additionally, emissions were calculated for truck engines idling upon arrival and prior to departure. The calculations assume that all trucks comply with state regulations limiting truck idling to 5 minutes at any

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<sup>72</sup> The air quality model assumed the proposed project would occupy the entire 54,285-square-foot vacant retail space on level 3 of the City Center shopping center, which was rounded up to 55,000 square feet in the air quality model. Subsequently, the project description was refined and the project sponsor would only occupy 49,825 square feet. The other 4,460 square feet would be retained by City Center and is not part of the proposed project. As a result, the air quality modeling results are conservative (worst-case) because the results are based on a larger retail space.

<sup>73</sup> U.S. Environmental Protection Agency, *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026* (2022), <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions#additional-resources>, accessed November 5, 2022.



location.<sup>74</sup> The analysis also assumes that each truck idles twice for 5 minutes: one 5-minute period at the start of loading and another 5-minute period at the end of loading before the truck leaves, for a total of 10 minutes of idling per truck trip. This assumption results in a conservative (e.g., worst case) estimate of emissions because Whole Foods does not allow trucks to idle while queuing for freight loading.<sup>75</sup>

## TRANSPORT REFRIGERATION UNITS

Transport refrigeration units (TRUs) are cooling units installed on trucks carrying perishable goods, such as food. TRU emissions were calculated to account for perishable goods delivery for the proposed project. The TRU is a separate emissions source that runs to keep perishable goods cold regardless of whether the truck engine is running. This analysis assumes that all TRUs, as well as the truck engines, are diesel-powered. Emissions during travel time and during unloading were calculated using TRU trips per year, engine size and load factors from air board's OFFROAD 2017 model, average speed and miles traveled for trucks, and unloading time. The average speed traveled by trucks carrying TRUs was assumed to be 30 miles per hour (mph), based on the standard speed limit for business or residential districts in California. The trip length was assumed to be consistent with the truck deliveries estimated as part of the mobile emissions inventory. The TRU engine was assumed to be operating the entire duration of the loading activity. Unloading times were provided in the transportation technical information in the initial study in Appendix A by truck type, which were used to calculate emissions occurring from TRUs while at loading docks.

## ARCHITECTURAL COATING

Operational architectural coatings account for the reapplication of paint and coatings on interior and exterior surfaces, which would result in emissions of VOCs. Architectural coating emissions were estimated using CalEEMod and were based on the square footage of the proposed project.

## CONSUMER PRODUCTS

Consumer product emissions come from various non-industrial solvents, including cleaning supplies, kitchen aerosols, cosmetics and toiletries, which emit VOCs during their use. Emissions from consumer products were calculated using CalEEMod and were based on the square footage of the proposed project.

## ENERGY USE

Natural gas emissions for the proposed project were calculated using 2021 natural gas use from the 52,889-square-foot Whole Foods Market at 150 East McKinley Avenue in Sunnyvale, California, which is comparable in size to the proposed project, along with emission factors from CalEEMod.<sup>76</sup> The actual square footage proposed to be occupied by the proposed project is 49,825 square feet. Therefore, assuming the proposed project would use the same amount of natural gas as the Sunnyvale store is a conservative assumption. Criteria air pollutant emissions were calculated from natural gas use only; indirect emissions from electricity use were not calculated because indirect electricity emissions occur at the emissions source (e.g., power generator) and may not be emitted locally.

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<sup>74</sup> CARB, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, Title 13, California Code of Regulations (CCR), section 2485, <https://www2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling>, accessed November 5, 2022.

<sup>75</sup> Whole Foods, Memorandum providing receiving operations process (August 26, 2021).

<sup>76</sup> Renk, Jennifer, Partner, Sheppard Mullin, e-mail correspondence with Elliott Schwimmer, Managing Associate, Environmental Science Associates, January 10, 2022.

## LOCAL HEALTH RISKS AND HAZARDS

In addition to criteria air pollutants, the proposed project would emit TACs. A health risk assessment (HRA) was conducted to estimate health risks from exposure to TACs emitted by construction and operation of the proposed project (see Appendix C.4).

**Table 3.A-6** provides the significance thresholds this EIR uses to evaluate community health risks and hazards from new sources of TACs.

**Table 3.A-6 Health Risk Thresholds**

Affected Sensitive Receptor	Thresholds for Construction and Operation	
	PM <sub>2.5</sub> (µg/m <sup>3</sup> )	Excess Cancer Risk (cases per on million population)
APEZ criteria- outside a health vulnerable zip code <sup>a</sup>	10	100
Significance threshold for project contributions to sensitive receptors meeting APEZ criteria <sup>b</sup>	0.2	7
Significance threshold for project contributions to sensitive receptors that do not meet APEZ criteria, but would meet APEZ criteria as a result of the project	0.3	10

SOURCES: BAAQMD, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 7, <http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en>, accessed September 29, 2022;  
BAAQMD, *California Environmental Quality Act Air Quality Guidelines*, May 2017, p. 2-2, [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed September 29, 2022;  
San Francisco Department of Public Health, Environmental Health, Planning, *Memorandum to File regarding 2014 Air Pollutant Exposure Zone Map*, April 9, 2014;  
M. Jerrett et al., "Spatial Analysis of Air Pollution and Mortality in Los Angeles," *Epidemiology* 16:727–736, 2005

ABBREVIATIONS:

BAAQMD = Bay Area Air Quality Management District; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter; µg/m<sup>3</sup> = micrograms per cubic meter; APEZ = Air Pollutant Exposure Zone

NOTES:

See San Francisco Modeling of Air Pollution Exposure Zone discussion above.

- <sup>a</sup> Health vulnerable areas were identified as those bay area zip codes in the worst quintile of bay area Health Vulnerability Scores, primarily the Bayview, Tenderloin, and much of the South of Market area, San Francisco Department of Public Health and San Francisco Department of Planning, *San Francisco Citywide Health Risk Assessment: Technical Support Documentation* (February 2020), accessed March 14, 2022.
- <sup>b</sup> A 0.2 µg/m<sup>3</sup> increase in PM<sub>2.5</sub> would result in a 0.28 percent increase in non-injury mortality or an increase of about 21 excess deaths per 1,000,000 population per year from non-injury causes in San Francisco. This information is based on M. Jerrett et al. 2005. The excess cancer risk has been proportionally reduced to result in a significance criterion of 7 per million persons exposed.

The threshold of significance used to evaluate community health risks and hazards from new sources of TACs is based on the potential for the proposed project to substantially affect the geography and severity of the APEZ at sensitive receptor locations. As shown in Table 3.A-6, if the proposed project would result in sensitive receptor locations meeting the APEZ criteria that otherwise would not without the proposed project, a substantial health risk contribution threshold is defined as a PM<sub>2.5</sub> concentration at or above 0.3 µg/m<sup>3</sup> or an excess cancer risk at or greater than 10.0 per million at sensitive receptor locations. The 0.3 µg/m<sup>3</sup> PM<sub>2.5</sub> concentration and the excess cancer risk of 10.0 per million persons exposed are the project-level health risk levels identified by the air district and the levels below which the air district considers new

sources not to make a considerable contribution to cumulative health risks.<sup>78</sup> For those locations already meeting the APEZ criteria, a lower significance threshold is required to ensure that the proposed project's contribution to existing health risks would not be significant. In these areas, the proposed project's PM<sub>2.5</sub> concentration at or above 0.2 µg/m<sup>3</sup> or an excess cancer risk at or greater than 7.0 per million, would be a substantial health risk contribution and a significant impact would occur.<sup>79</sup> Chronic Hazard Index (HI) resulting from the proposed project is also disclosed and compared against the air district's chronic HI threshold of 1.0. Projects that result in a cancer risk or PM<sub>2.5</sub> concentration below these levels at sensitive receptors would not expose sensitive receptors to substantial pollutant concentrations, the third bulleted significance criterion identified above.

The HRA was prepared using technical information and HRA guidance and protocol from the air district,<sup>80</sup> air board,<sup>81</sup> the OEHHA,<sup>82</sup> and the 2020 Citywide HRA.<sup>83</sup> The HRA evaluated the estimated incremental increase in lifetime cancer risk from exposure to emissions of DPM and gasoline speciated total organic gases (TOG) and the annual average PM<sub>2.5</sub> concentrations associated with combustion and fugitive sources (including tire wear, brake wear, and road dust) that would be emitted by proposed project-related construction and operational activities. The HRA focuses on the pollutants of concern (PM<sub>2.5</sub>, DPM, and TOGs) because these pollutants pose substantial health impacts at the local level more so than other types of air pollutants. While DPM is a complex mixture of gases and fine particles that includes over 40 substances that are listed by U.S. EPA as hazardous air pollutants and by the air board as toxic air contaminants, in accordance with OEHHA health risk guidance, the DPM analysis used PM<sub>10</sub> emissions as a surrogate for DPM emissions.<sup>84</sup> This is a conservative approach because DPM is a subset of PM<sub>10</sub>, and therefore DPM emissions are expected to be lower. Pollutant concentrations were estimated using the American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee regulatory air dispersion model (AERMOD version 19191).<sup>85</sup> Consistent with the 2020 Citywide HRA, health risks (cancer risk and chronic HI) from DPM and TOGs and annual average PM<sub>2.5</sub> concentrations were estimated at all sensitive receptors located within 3,280 feet (1,000 meters) of the proposed project's boundaries. The cancer risk analysis assumes sensitive receptors would be exposed to all construction emissions occurring over the 10-month construction period followed by operational emissions. For the residential sensitive receptor, the resident is assumed to be exposed to construction period emissions and 30 years of operational emissions. For the daycare receptor, the analysis assumes a child exposed to all construction period emissions and up to 9 years of operational

<sup>78</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Guidelines* (2017), [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 5, 2022.

<sup>79</sup> A 0.2 µg/m<sup>3</sup> increase in PM<sub>2.5</sub> would result in a 0.28 percent increase in non-injury mortality or an increase of about twenty-one excess deaths per 1,000,000 population per year from non-injury causes in San Francisco. This information is based on Jerrett M. et al., *Spatial Analysis of Air Pollution and Mortality in Los Angeles*, *Epidemiology* 16 (2005): 727–736. The excess cancer risk has been proportionally reduced to result in a significance criterion of 7 per million persons exposed.

<sup>80</sup> Bay Area Air Quality Management District, *Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines* (January 2016), [http://www.baaqmd.gov/~media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines\\_clean\\_jan\\_2016-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en), accessed November 5, 2022.

<sup>81</sup> California Air Resources Board, Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values (last updated October 2, 2020), <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/healthval/contable.pdf>, accessed November 5, 2022.

<sup>82</sup> Office of Environmental Health Hazard Assessment, *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments* (February 2015), [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html), accessed November 5, 2022.

<sup>83</sup> San Francisco Department of Public Health, and San Francisco Planning Department, *The San Francisco Citywide Health Risk Assessment: Technical Support Documentation*, September 2020.

<sup>84</sup> Office of Environmental Health Hazard Assessment, *For the "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant" Part B: Health Risk Assessment for Diesel Exhaust* (May 1998), [https://www.arb.ca.gov/toxics/dieseltac/part\\_b.pdf](https://www.arb.ca.gov/toxics/dieseltac/part_b.pdf), accessed March 15, 2022.

<sup>85</sup> U.S. EPA, *AERMOD Implementation Guide* (December 2016), [https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod\\_implementation\\_guide.pdf](https://gaftp.epa.gov/Air/aqmg/SCRAM/models/preferred/aermod/aermod_implementation_guide.pdf), accessed November 5, 2022.

emissions. For the worker receptor, the analysis assumes a worker exposed to construction period emissions and up to 25 years of operational emissions.

The daycare and resident Maximally Exposed Individual (MEI) is the sensitive receptor with the highest modeled health risk. The Maximally Exposed Individual Worker (MEIW) is the worker receptor with the highest modeled health risk. See Appendix C.3 for a detailed explanation of all assumptions and methods used in the HRA.

### **Existing-plus-Proposed-Project Health Risks**

Existing-plus-proposed-project cancer risk and annual average PM<sub>2.5</sub> concentrations were estimated at the daycare facility on level 4 of the City Center shopping center, at City Center worker receptor locations, and at offsite receptors within 1,000 meters of the project site. The estimated risks include other sources of stationary, area, and mobile emissions that are included in the 2020 Citywide HRA, in addition to health impacts from the proposed project. Health risk values from the 2020 Citywide HRA database were used to quantify the existing cancer risk and annual average PM<sub>2.5</sub> concentrations. These were added to health risks from the proposed project to determine the existing-plus-proposed-project impact. This analysis is presented in Impact AQ-3.

### **METHODS FOR ANALYSIS OF CUMULATIVE IMPACTS**

As noted above, by definition, regional air pollution is largely a cumulative impact in that no single project is sufficient in size, by itself, to cause nonattainment of air quality standards. The contribution of a project's air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from cumulative projects in the vicinity could also contribute to cumulative air quality conditions and potentially adverse regional air quality impacts.<sup>86</sup> As described above, the project-level thresholds for criteria air pollutants identify levels of emissions for new sources that are not anticipated to result in a considerable net increase in nonattainment criteria air pollutants. Therefore, if a project's emissions are below the project-level thresholds, the project would not result in a considerable contribution to cumulative regional air quality impacts. For this reason, no separate cumulative criteria air pollutant analysis is warranted, and none is provided below.

Potential cumulative health risks were analyzed at the proposed project's daycare and residential MEI and at the MEIW. The analysis considers existing health risks in combination with the proposed project's health risk and TACs from cumulative projects within one-half mile (2,640 feet) of the MEIs (see Impact C-AQ-1).<sup>87</sup> This distance is conservatively greater than the 1,000-foot radius as the "zone of influence" recommended by the air district for considering existing background and cumulative sources of health risk.<sup>88</sup> The 1,000 foot zone influence distance is based on a variety of studies and information, including the air board's recommendation to avoid siting sensitive land uses within 1,000 feet of a distribution center and major rail yard;<sup>89</sup> Health and Safety Code section 42301.6 (Notice for Possible Source Near School); and studies that have shown that the concentrations of particulate matter tend to be reduced substantially or can even be indistinguishable from upwind background concentrations at a distance of 1,000 feet downwind from

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<sup>86</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines* (May 2017), [http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 5, 2022.

<sup>87</sup> The MEI adequately captures analysis of all sensitive receptors.

<sup>88</sup> The MEI adequately captures analysis of all sensitive receptors.

<sup>89</sup> California Air Resources Board, *Land Use Compatibility Handbook* (April 2005), <https://ww3.arb.ca.gov/ch/handbook.pdf>, accessed November 5, 2022.

sources such as freeways or large distribution centers.<sup>90</sup> Cumulative health risk was addressed largely qualitatively because of the lack of available emissions and health risk data for most of the cumulative projects. Where quantitative health risk information exists from cumulative projects, that information is disclosed.

As discussed above, a PM<sub>2.5</sub> concentration of 0.3 µg/m<sup>3</sup> and excess cancer risk concentration of 10.0 per million persons exposed are the levels below which the air district considers new sources not to make a considerable contribution to cumulative health risks.<sup>91</sup> However, for those locations already meeting the APEZ criteria, a lower significance threshold is required to ensure that the proposed project's contribution to cumulative health risks would not be significant. In these areas, the proposed project's PM<sub>2.5</sub> concentration at or above 0.2 µg/m<sup>3</sup> or an excess cancer risk at or greater than 7.0 per million would be a cumulatively considerable health risk contribution and the project would result in a significant cumulative impact.<sup>92</sup>

## IMPACT EVALUATION

### **Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the Clean Air Plan. (*Less than Significant*)**

As discussed above, the most recently adopted air quality plan for the air basin is the *2017 Clean Air Plan (Clean Air Plan): Spare the Air, Cool the Climate*.<sup>93</sup> The Clean Air Plan is a road map that demonstrates how the bay area will, in accordance with the requirements of the California Clean Air Act, implement all feasible measures to reduce ozone. It also provides a control strategy to reduce ozone, PM, air toxics, and GHGs. In determining consistency with the Clean Air Plan, this analysis considers whether the proposed project would (1) support the primary goals of the Clean Air Plan, (2) include applicable control measures from the Clean Air Plan, and (3) avoid disrupting or hindering implementation of control measures identified in the Clean Air Plan. These considerations are discussed in detail below.

The primary goals of the 2017 Clean Air Plan are to protect air quality and public health at the regional and local scale and protect the climate by reducing regional criteria air pollutant emissions; reducing local air-quality-related health risks (by meeting state and national ambient air quality standards); and reducing GHG emissions (to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050).<sup>94</sup>

To meet the primary goals, the plan recommends 85 specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures.

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<sup>90</sup> Y. Xhu, W.C. Hinds, S. Kim, and C. Sioutas, "Concentration and size distribution of ultrafine particles near a major highway," *Journal of Air and Waste Management Association* 52 (9): 1032–42, (September 2002), <https://pubmed.ncbi.nlm.nih.gov/12269664/>, accessed November 5, 2022.

<sup>91</sup> Bay Area Air Quality Management District, *California Environmental Quality Act Guidelines* (2017), [https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed November 5, 2022.

<sup>92</sup> A 0.2 µg/m<sup>3</sup> increase in PM<sub>2.5</sub> would result in a 0.28 percent increase in non-injury mortality or an increase of about twenty-one excess deaths per 1,000,000 population per year from non-injury causes in San Francisco. This information is based on Jerrett M. et al., *Spatial Analysis of Air Pollution and Mortality in Los Angeles*, *Epidemiology* 16 (2005): 727–736. The excess cancer risk has been proportionally reduced to result in a significance criterion of 7 per million persons exposed.

<sup>93</sup> Bay Area Air Quality Management District, *2017 Clean Air Plan: Spare the Air, Cool the Climate* (April 19, 2017), <http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-proposed-final-cap-vol-1-pdf.pdf?la=en>, accessed November 5, 2022.

<sup>94</sup> The air district's 2030 GHG target is consistent with the California's GHG 2030 reduction target, per Senate Bill 32. The air district's 2050 target is consistent with the state's 2050 GHG reduction target per Executive Order S-3-05.

Other measures in the plan not within the air district's regulatory authority may be advisory or are otherwise not specifically applicable to land use projects.

The clean air plan recognizes that to a great extent, community design dictates individual travel mode, and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and greenhouse gases from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. The control measures most applicable to the proposed project are transportation control measures and energy and climate control measures.<sup>95</sup> The proposed project's impact with respect to GHGs is discussed in initial study Section E.5, Greenhouse Gas Emissions, which demonstrates that the proposed project would not result in a significant GHG impact (see Appendix A).

As discussed in the initial study, Section E.2 Transportation, the project site is in an area where existing VMT per capita is more than 15 percent below the regional average. Additionally, the infill nature of the proposed project and high availability of viable transportation options ensure that employees and patrons of Whole Foods could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. Further, the transportation control measures that are identified in the clean air plan are implemented by the San Francisco General Plan and the planning code, for example, through the city's Transit First Policy. Compliance with these requirements would ensure the project includes relevant transportation control measures specified in the clean air plan. As shown in Impacts AQ-2 and AQ3, the proposed project's anticipated 2,658 one-way daily passenger vehicle trips from customers and employees, as well as 92 daily truck one-way trips (46 round trips) from delivery vehicles would result in a less than significant increase in air pollutant emissions and associated health risks. Therefore, the proposed project would include applicable control measures identified in the clean air plan to meet the plan's primary goals. If approval of a project would not cause the disruption, delay or otherwise hinder the implementation of any air quality plan control measure, it would be considered consistent with the Clean Air Plan. Examples of a project that could cause the disruption or delay of the clean air plan control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would add a new Whole Foods grocery store to a dense, walkable urban area near a concentration of regional and local transit service. It would not add additional parking or preclude the extension of a transit line or a bike path or any other transit improvement, and thus would not disrupt or hinder implementation of the clean air plan's control measures.

For the reasons described above, the proposed project would not conflict with or obstruct implementation of the clean air plan and this impact would be ***less than significant***. No mitigation measures are necessary.

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<sup>95</sup> Stationary source, agricultural, and natural and working lands control measures are not applicable to the proposed project.

**Impact AQ-2: Construction and operation of the proposed project would not result in a cumulatively considerable net increase of non-attainment criteria air pollutants within the air basin. (Less than Significant)**

### CONSTRUCTION CRITERIA AIR POLLUTANT EMISSIONS

Construction of the proposed project has the potential to emit criteria air pollutant emissions through the use of a crane, construction workers' vehicle trips, and vendor truck trips. Architectural coating activities would also emit reactive organic gases (an ozone precursor). The assessment of construction criteria air pollutant impacts considers each of these potential sources. The only diesel-powered off-road construction equipment that would be used onsite is a crane for lifting HVAC equipment onto the roof. These emissions were calculated using the methods described above under, "Construction Activities." Additional modeling details are provided in Appendix C.3. The following summarizes the results of the emissions analysis.

**Table 3.A-7** presents construction emissions from the proposed project. As shown in Table 3.A-7, construction-related emissions of ROG, NO<sub>x</sub>, and PM<sub>2.5</sub> would not exceed the significance threshold of 54 pounds/day (average); emissions of PM<sub>10</sub> would not exceed the significance threshold of 82 pounds/day (average). Emissions of PM<sub>10</sub> and PM<sub>2.5</sub> in this table are for exhaust emissions only because the air district's construction criteria air pollutant thresholds only apply to exhaust related PM<sub>10</sub> and PM<sub>2.5</sub>. In addition, the proposed project does not include ground disturbance; thus, no fugitive PM<sub>10</sub> and PM<sub>2.5</sub> would be emitted during construction.

**Table 3.A-7 Average Daily Construction Emissions**

Source	Average Daily Emissions (pounds/day)			
	ROG	NO <sub>x</sub>	PM <sub>10</sub> Exhaust	PM <sub>2.5</sub> Exhaust
Off-Road Equipment (Crane)	0.003	0.032	0.001	0.001
On-Road Vehicles (gas and diesel)	0.528	0.228	0.050	0.018
Architectural Coating	2.6	<0.01	<0.01	<0.01
<b>Total</b>	<b>3.1</b>	<b>0.3</b>	<b>0.05</b>	<b>0.02</b>
Significance Threshold	54	54	82	54
Threshold Exceeded?	No	No	No	No

SOURCE: Ramboll (2022); see Appendix C.4, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results

ABBREVIATIONS:

ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter

NOTES:

<sup>a</sup> Emissions are averaged over 218 working days during a 10-month construction period starting in October 2024.

<sup>b</sup> Due to rounding, numbers in columns may not add to totals.



## OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS

**Table 3.A-8** presents operational emissions from the proposed project, which include those from employee and customer vehicles, delivery trucks, and TRUs. Architectural coating activities, use of consumer products, and natural gas combustion also would emit criteria air pollutant emissions. As shown in these tables, operational emissions would not exceed the daily or annual significance thresholds. Emissions of PM<sub>10</sub> and PM<sub>2.5</sub> in Table 3.A-8 represent emissions from vehicle exhaust and fugitive road dust, brake wear, and tire wear.

As shown in Table 3.A-7 and Table 3.A-8, construction and operational criteria air pollutant emissions would be well below applicable significance thresholds. Therefore, the proposed project would not generate air pollutant emissions that would result in a cumulatively considerable net increase in non-attainment criteria air pollutants. This impact would be **less than significant**. No mitigation measures are necessary.

**Table 3.A-8 Annual Operational Emissions**

	Annual Operational Emissions (tons/year) <sup>a</sup>				Average Daily Operational Emissions (lb/day) <sup>a</sup>			
	ROG	NO <sub>x</sub>	PM <sub>10</sub> <sup>b</sup>	PM <sub>2.5</sub> <sup>b</sup>	ROG	NO <sub>x</sub>	PM <sub>10</sub> <sup>b</sup>	PM <sub>2.5</sub> <sup>b</sup>
Area (architectural coating and use of consumer products)	0.25	<0.01	<0.01	<0.01	1.4	<0.01	<0.01	<0.01
Energy (natural gas combustion)	0.01	0.12	0.0090	0.0090	0.07	0.65	0.05	0.05
Refrigerated Delivery Trucks <sup>c</sup>	0.54	1.84	0.16	0.10	2.95	10.01	0.88	0.55
Non-refrigerated Delivery Trucks	0.03	1.09	0.23	0.17	0.14	5.96	1.26	0.93
Passenger Vehicles	2.39	0.70	1.90	1.7	13.07	3.83	11	9.36
Truck Idling at Loading Dock	<0.01	0.08	<0.01	<0.01	0.47	0.51	0.02	0.02
<b>Total<sup>d</sup></b>	<b>3.2</b>	<b>3.8</b>	<b>2.3</b>	<b>2.0</b>	<b>18.0</b>	<b>21.0</b>	<b>13.2</b>	<b>11.0</b>
Significance Threshold	10	10	15	10	54	54	82	54
Threshold Exceeded?	No	No	No	No	No	No	No	No

SOURCE: Ramboll (2022); see Appendix C.4, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results

ABBREVIATIONS:

ROG = reactive organic gases; NO<sub>x</sub> = oxides of nitrogen; PM<sub>10</sub> = particulate matter less than or equal to 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than or equal to 2.5 microns in diameter

NOTES:

<sup>a</sup> Assume the earliest year of operation to be 2025.

<sup>b</sup> Particulate matter emissions include both exhaust and fugitive emissions from on-road mobile sources.

<sup>c</sup> Includes TRUs on road and at the loading dock.

<sup>d</sup> Due to rounding, numbers in columns may not add to totals.

**Impact AQ-3: Construction and operation of the proposed project would not produce emissions of fine particulate matter (PM<sub>2.5</sub>) and toxic air contaminants that would result in exposure of sensitive receptors to substantial air pollutant concentrations. (*Less than Significant*)**

The HRA was conducted to identify maximum health risks from construction and operation of the proposed project on sensitive receptors, including workers,<sup>96</sup> due to inhalation of PM<sub>2.5</sub> and TACs emitted from diesel-fueled equipment and vehicles during construction and operation, and gasoline-fueled vehicles during operation. For operational emissions, mobile sources (employee and customer vehicles and delivery trucks) on roadways and at loading docks (delivery trucks) were modeled.

The HRA evaluated excess lifetime cancer risk and annual average PM<sub>2.5</sub> concentrations at sensitive receptors that would be exposed to emissions from construction and operation of the proposed project. The chronic HI is also reported. All sensitive receptors within 1,000 meters of the project site were evaluated in the HRA, and the maximum exposed individual (MEI) is reported below. The analysis assumes construction would begin in 2024 and the store would open in 2025.

Health risks resulting from the proposed project were analyzed according to the methods summarized above under, “Local Health Risks and Hazards.” Additional information on the health risk methods and assumptions can be found in Appendix C.3.

## CONSTRUCTION

The diesel-fueled crane necessary for replacement of the HVAC equipment in the rooftop mechanical penthouse would contribute to health risks at nearby sensitive receptor locations. In addition, emissions from on-road worker vehicles and vendor trucks would include directly emitted PM<sub>2.5</sub> and DPM, TACs (as *speciated* compounds<sup>97</sup>) in TOG exhaust, plus fugitive PM<sub>2.5</sub> from tire wear, brake wear, and road dust.

## OPERATIONS

During operation of the proposed project, diesel delivery trucks with TRUs would directly emit PM<sub>2.5</sub> and DPM, plus fugitive PM<sub>2.5</sub> from tire wear, brake wear, and road dust. On-road vehicles would emit TACs (as *speciated* compounds) in TOG exhaust, as well as fugitive PM<sub>2.5</sub> from tire wear, brake wear, and road dust.

## EXISTING PLUS PROPOSED PROJECT HEALTH RISKS

**Table 3.A-9** presents a summary of the existing plus project health risk results at the daycare and resident MEI, as well as at the maximally exposed individual worker (MEIW). The table includes lifetime excess cancer risk (chances of contracting cancer per 1 million persons exposed) and average annual PM<sub>2.5</sub> concentrations (µg/m<sup>3</sup>) at the MEI from exposure to construction-related and operational TAC emissions.<sup>98</sup> The residential MEI is located on the south side of the project site, at the corner of O’Farrell and Anzavista. The daycare sensitive receptor with the highest cancer risk and annual average PM<sub>2.5</sub> concentration is located at the

<sup>96</sup> As discussed above, offsite workers (workers near the proposed project) are conservatively considered sensitive receptors in this analysis and address comments received on the NOP requesting an evaluation of the air quality effects of the proposed project on workers near the project site.

<sup>97</sup> Speciated compounds” are the individual chemical compounds that comprise TOG (e.g., benzene, acrolein, toluene) and are listed in Table 14 of Bay Area Air Quality Management District, Recommended Methods for Screening and Modeling Local Risks and Hazards (May 2012), <https://www.baaqmd.gov/~media/files/planning-and-research/ceqa/risk-modeling-approach-may-2012.pdf?la=en&rev=3ed5e81662784057941d97b851900d19>, accessed November 5, 2022.

<sup>98</sup> The PM<sub>2.5</sub> concentration is based on an annual average and because construction activities would not occur at the same time as operational activities, the PM<sub>2.5</sub> concentration reported is the highest concentration from either construction or operation.

**Table 3.A-9 Summary of Existing plus Project Lifetime Excess Cancer Risk and Annual Average PM<sub>2.5</sub> Concentrations for Receptors Analyzed**

Emissions Source	Residential MEI Receptor		Daycare MEI Receptor		Worker MEIW Receptor	
	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>
Receptor Location (UTM X, UTM Y)	(548840, 4181680)	(548840, 4181680)	(548780, 4181780)	(548800, 4181780)	(548820, 4181780)	(548820, 4181780)
<b>EXISTING HEALTH RISKS AT MEI AND MEIW</b>						
Existing-from 2020 Citywide HRA	50	8.5	105	9.2	96.2	9.13
<b>PROPOSED PROJECT HEALTH RISK AT MEI AND MEIW</b>						
Construction – worker vehicles	0.0027	0.002	3.9e-04	3.2e-04	4.7e-04	5.5e-04
Construction – vendor trucks	2.8e-05	6.7e-06	6.1e-06	1.5e-06	6.0e-06	2.3e-06
Construction – crane	4.0e-04	2.7e-05	0.0028	1.3e-04	0.0031	3.3e-04
<i>Construction Subtotal</i>	<i>0.003</i>	<i>0.002</i>	<i>0.032</i>	<i>4.5e-04</i>	<i>0.0036</i>	<i>8.9e-04</i>
Operation – passenger vehicles exhaust	2.3	0.034	0.16	0.0054	0.10	0.0094
Operation – truck exhaust	0.24	0.001	0.029	2.7e-04	0.026	6.5e-04
Operation – TRU exhaust	1.0	0.002	0.83	0.002	2.9	0.082
Operation – truck idling	0.084	1.1e-04	0.053	1.3e-04	0.68	0.0055
<i>Operations Subtotal</i>	<i>3.58</i>	<i>0.037</i>	<i>1.07</i>	<i>0.008</i>	<i>3.68</i>	<i>0.10</i>
<b>Proposed Project Total at MEI/MEIW</b>	<b>3.58</b>	<b>0.037<sup>c</sup></b>	<b>1.07</b>	<b>0.008<sup>c</sup></b>	<b>3.69</b>	<b>0.10<sup>c</sup></b>
<b>Existing + Proposed Project<sup>a</sup></b>	<b>53.6</b>	<b>8.5</b>	<b>106.1</b>	<b>9.2</b>	<b>99.9</b>	<b>9.23</b>

Emissions Source	Residential MEI Receptor		Daycare MEI Receptor		Worker MEIW Receptor	
	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>
<b>THRESHOLDS FOR PROJECT CONTRIBUTION<sup>d</sup></b>						
Project Contribution Threshold	10	0.3	7	0.2	10	0.3
Project Contribution Threshold Exceeded?	No	No	No	No	No	No

SOURCE: Ramboll (2022); see Appendix C.4, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results

ABBREVIATIONS:

PM<sub>2.5</sub> = fine particulate matter less than 2.5 micrometers in aerodynamic diameter; µg/m<sup>3</sup> = micrograms per cubic meters; UTM = Universal Transverse Mercator; UTM X = eastward-measured distance; UTM Y = northward-measured distance; MEI = maximally exposed individual sensitive receptor; MEIW = maximally exposed individual worker

NOTES:

- <sup>a</sup> Existing + Proposed Project Total cancer risk may not appear to be added due to rounding. All receptors are assumed to be exposed to construction risks for the duration of construction, which is 10 months in 2024. The resident and daycare receptors are assumed to be exposed to operational risks for 30 years beginning in 2025 at the start of operation. The worker receptor is assumed to be exposed to operational risks for 25 years beginning in 2025 at the start of operation.
- <sup>b</sup> The daycare MEI and Worker MEI cancer and PM<sub>2.5</sub> impacts occur at different receptors.
- <sup>c</sup> PM<sub>2.5</sub> concentrations represent annual averages, so PM<sub>2.5</sub> concentrations from construction and operations would not be additive since construction and operations would not occur at the same time. The maximum PM<sub>2.5</sub> annual average between construction and operations is shown here instead.
- <sup>d</sup> The project contribution significance thresholds of an excess cancer risk of 10 or PM<sub>2.5</sub> contribution of 0.3 ug/m<sup>3</sup> only applies to sensitive receptors that do not meet APEZ criteria under existing conditions but would meet APEZ criteria as a result of the proposed project.

daycare, on levels 4 and 5 of the City Center shopping center. The MEIW is a worker in the shopping center near the loading dock (assuming the worker is employed at one of the entities sharing the site with the proposed project), at the northeastern corner of the existing building.

As shown in Table 3.A-9, the proposed project's greatest cancer risk contribution is 3.7 in 1 million and the project's greatest PM<sub>2.5</sub> contribution is 0.1 µg/m<sup>3</sup>, both at the MEIW. The proposed project's cancer risk and PM<sub>2.5</sub> concentration is even lower at the resident and daycare MEIs. The proposed project's health risk contribution at the resident and daycare MEI and the MEIW are substantially below, and do not exceed, the most restrictive health risk significance threshold of an excess cancer risk of 7 per 1 million persons exposed or PM<sub>2.5</sub> concentrations of 0.2 µg/m<sup>3</sup>. Thus, the proposed project would not substantially affect the geography and severity of the APEZ at sensitive receptor locations. Furthermore, the proposed project would result in a maximum chronic HI of 0.02 at the MEIW, 0.01 at the resident MEI, and 0.002 at the daycare MEI, all which are well below the air district's chronic HI threshold of 1.0. Therefore, the health risk impact from construction and operation of the proposed project would be ***less than significant***. No mitigation measures are required.

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**Impact AQ-4: Construction and operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (*Less than Significant*)**

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. The proposed project would include the use of one diesel-powered crane for two days during construction. Operation of the proposed project would involve idling delivery trucks, which are assumed to be diesel-fueled. Diesel exhaust can be a source of odors, but it is generally not offensive enough to generate complaints. Furthermore, diesel exhaust, and therefore odors, would dissipate with increasing distance from the sources. Therefore, the proposed project would not introduce significant sources of new odors affecting a substantial number of people in the vicinity. As such, odor impacts from the proposed project would be ***less than significant***. No mitigation measures are necessary.

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## CUMULATIVE IMPACTS

As described above under "Methods for Analysis of Cumulative Impacts," the project-specific thresholds of significance for criteria air pollutants are based on levels below which new sources would not result in a cumulatively considerable net increase in criteria air pollutants for which the bay area is in nonattainment. The proposed project's criteria air pollutant emissions are addressed under Impact AQ-2. Therefore, no separate cumulative criteria air pollutant analysis is required.

**Impact C-AQ-1: Construction and operation of the proposed project, in combination with cumulative projects would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM<sub>2.5</sub>) and toxic air contaminants, but the proposed project's health risk contribution would be less than cumulatively considerable. (*Less than Significant*)**

Health risk impacts are localized because emissions from a source disperse, and concentrations of air pollutants decrease with increasing distance from the source. The study area for cumulative localized air quality impacts is approximately 3,280 feet (1,000 meters) of City Center at 2675 Geary Boulevard. This study area is conservatively greater than the 1,000-foot cumulative analysis radius at a project's maximally exposed receptor recommended by the air district. The cumulative projects considered in this analysis range from 210 feet to 3,616 feet from the Project's resident and daycare MEI and MEIW in order to capture large scale development projects outside the 1,000-foot cumulative analysis radius recommended by the air district. The cumulative health risk analysis evaluates the health risk of the proposed project in combination with existing health risks and health risks from cumulative projects within approximately 0.5 miles of the proposed project's resident and daycare MEI and MEIW.

As discussed above, the air district's 1,000-foot cumulative zone influence distance is based on a variety of studies and information, including the air board's recommendation to avoid siting sensitive land uses within 1,000 feet of a distribution center and major rail yard;<sup>99</sup> Health and Safety Code section 42301.6 (Notice for Possible Source Near School); and studies that have shown that the concentrations of particulate matter tend to be reduced substantially or can even be indistinguishable from upwind background concentrations at a distance of 1,000 feet downwind from sources such as freeways or large distribution centers.<sup>100</sup> Therefore, expanding the cumulative analysis radius beyond the air district's recommended 1,000 feet is conservative and would be assured to capture emissions from cumulative projects that could contribute to health risks at the project's residential and daycare MEI and MEIW.

As discussed above, this cumulative health risk analysis is largely qualitative because of the lack of available emissions and health risk data for most of the cumulative projects. Where quantitative health risk information exists from cumulative projects, that information is disclosed.

A total of 12 projects have been identified within approximately 0.5 miles. Of the 12 cumulative projects, quantitative health risk information is available for the following three projects:

- 3333 California Street
- 3641 Geary Boulevard
- Geary Bus Rapid Transit Project

**Table 3.A-10** presents the maximum modeled cancer risk and annual PM<sub>2.5</sub> concentrations at the proposed project's daycare and resident MEI and MEIW locations from (1) existing background values from the 2020 Citywide HRA, (2) the above cumulative projects for which quantitative health risk information is available, and (3) the proposed project. The health risk contribution from the Geary Bus Rapid Transit and 3461 Geary Boulevard cumulative projects listed in Table 3.A-10 would be much lower than what is presented in this table at the project resident and daycare MEI and MEIW because the quantitative data do not account for

<sup>99</sup> California Air Resources Board, *Land Use Compatibility Handbook* (April 2005), <https://ww3.arb.ca.gov/ch/handbook.pdf>, accessed March 13, 2022.

<sup>100</sup> Y. Xhu, W.C. Hinds, S. Kim, and C. Sioutas, "Concentration and size distribution of ultrafine particles near a major highway," *Journal of Air and Waste Management Association* 52 (9): 1032-42, (September 2002), <https://pubmed.ncbi.nlm.nih.gov/12269664/>, accessed March 15, 2022.



**Table 3.A-10 Summary of Quantitative Cumulative Lifetime Excess Cancer Risk and Annual Average PM<sub>2.5</sub> Concentrations for Receptors Analyzed**

Emissions Source	Residential Receptor MEI		Daycare Receptor MEI		Worker Receptor MEIW	
	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>
Receptor Location (UTM X, UTM Y)	(548840, 4181680)	(548840, 4181680)	(548780, 4181780)	(548800, 4181780)	(548820, 4181780)	(548820, 4181780)
<b>EXISTING HEALTH RISKS AT MEI/MEIW</b>						
Existing-from 2020 Citywide HRA	50	8.5	105	9.2	96	9.1
<b>CUMULATIVE PROJECT HEALTH RISK CONTRIBUTION AT MEI AND MEIW<sup>b</sup></b>						
3333 California Street	0.15	8.0e-4	0.32	0.0014	0.27	0.0013
Geary Bus Rapid Transit	2.8	0.0050	2.8	0.0050	2.8	0.0050
3461 Geary Boulevard	1.7	N/A	1.7	N/A	1.7	N/A
<b>Cumulative Project Total</b>	<b>5</b>	<b>0.006</b>	<b>5</b>	<b>0.006</b>	<b>4.8</b>	<b>0.006</b>
<b>PROPOSED PROJECT HEALTH RISK AT MEI AND MEIW</b>						
Construction – worker vehicles	0.0027	0.0020	3.9e-04	3.2e-04	4.7e-04	5.5e-04
Construction – vendor trucks	2.8e-05	6.7e-06	6.1e-06	1.5e-06	6.0e-06	2.3e-06
Construction – crane	4.0e-04	2.7e-05	0.0028	1.3e-04	0.0031	3.3e-04
<i>Construction Subtotal</i>	<i>0.0031</i>	<i>0.0020</i>	<i>0.0032</i>	<i>4.5e-04</i>	<i>0.0036</i>	<i>8.9e-04</i>

Emissions Source	Residential Receptor MEI		Daycare Receptor MEI		Worker Receptor MEIW	
	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>	Lifetime Excess Cancer Risk (chances per 1 million) <sup>b</sup>	Annual Average PM <sub>2.5</sub> Concentrations (µg/m <sup>3</sup> ) <sup>b</sup>
Operation – passenger vehicles exhaust	2.3	0.034	0.16	0.0054	0.10	0.0094
Operation – truck exhaust	0.24	0.001	0.029	2.7e-04	0.026	6.5e-04
Operation – TRU Exhaust	1.0	0.002	0.83	0.0021	2.9	0.082
Operation – truck idling	0.084	1.1e-04	0.053	1.3e-04	0.68	0.0055
<i>Operations Subtotal</i>	3.58	0.037	1.07	0.0080	3.68	0.10
<b>Proposed Project Total at MEI and MEIW</b>	<b>3.58</b>	<b>0.037<sup>c</sup></b>	<b>1.07</b>	<b>0.0080<sup>c</sup></b>	<b>3.69</b>	<b>0.10<sup>c</sup></b>
<b>Existing + Cumulative Projects + Proposed Project Health Risk at MEI and MEIW</b>	<b>58.6</b>	<b>8.5</b>	<b>111.1</b>	<b>9.2</b>	<b>105</b>	<b>9.2</b>
<b>THRESHOLDS FOR PROJECT CONTRIBUTION<sup>d</sup></b>						
Project Contribution Threshold	10	0.3	7	0.2	7	0.2
Project Contribution Threshold Exceeded?	No	No	No	No	No	No

SOURCE: Ramboll (2022); see Appendix C.4, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results

ABBREVIATIONS:

PM<sub>2.5</sub> = fine particulate matter less than 2.5 micrometers in aerodynamic diameter; µg/m<sup>3</sup> = micrograms per cubic meters; UTM = Universal Transverse Mercator; UTM X = eastward-measured distance; UTM Y = northward-measured distance; MEISR = maximally exposed individual sensitive receptor; N/A = not available

NOTES:

- <sup>a</sup> Existing + Proposed Project Total risk may not appear to be added due to rounding. All receptors are assumed to be exposed to construction risks for the duration of construction, which is 10 months in 2024. The resident and day care receptors are assumed to be exposed to operational risks for 30 years beginning in 2025 at the start of operation. The worker receptor is assumed to be exposed to operational risks for 25 years beginning in 2025 at the start of operation.
- <sup>b</sup> The daycare MEI and PM<sub>2.5</sub> impacts occur at different receptors.
- <sup>c</sup> PM<sub>2.5</sub> concentrations are based on annual averages, so PM<sub>2.5</sub> concentrations from construction and operations would not be additive since construction and operations would not occur at the same time.
- <sup>d</sup> The project contribution significance thresholds of an excess cancer risk of 10 or PM<sub>2.5</sub> contribution of 0.3 µg/m<sup>3</sup> only applies to sensitive receptors that do not meet APEZ criteria under existing conditions but would meet APEZ criteria as a result of the proposed project.

reduced air pollutant concentrations and, therefore, lower health risks, due to the distance between the proposed project MEIs and MEIW and the cumulative project emissions sources. For example, the cumulative project at 3641 Geary Boulevard is approximately 3,600 feet from the proposed project site, and therefore the cancer risk contribution from that project at the proposed project resident and daycare MEI and MEIW is much lower than 1.7 in 1 million and likely negligible.

Data from the 3333 California Street project health risk analysis does take into account the distance between that project's emissions sources and the proposed project's daycare and resident MEI and MEIW. Therefore, the health risks presented in Table 3.A-10 for the 3333 California Street are reflective of the approximately 1,500 feet between that project's emissions and the proposed project daycare and resident MEI and MEIW. Following Table 3.A-10 is a qualitative discussion of the health risk contribution from cumulative projects for which quantitative information is not available.

Other reasonably foreseeable projects within approximately 0.5 mile of the proposed project's residential and daycare MEI and MEIW are listed below along with their distance to the proposed project site. As discussed above, quantified cancer risk and annual PM<sub>2.5</sub> concentrations are not available for these projects and therefore a qualitative analysis of the health risk contribution from these projects are disclosed below. **Table 3.A-11** presents the distances from these projects to the residential MEI, MEIW, and the daycare cancer risk MEI and PM<sub>2.5</sub> MEI. Table 3-1, p. 3-6, provides a description of the cumulative projects in Table 3.A-11.

**Table 3.A-11 Approximate Distance from Cumulative Projects to Proposed Project MEIs and MEIW**

Cumulative Project	Residential MEI (cancer risk and PM <sub>2.5</sub> )	Daycare MEI (cancer risk)	Daycare MEI (PM <sub>2.5</sub> )	Worker MEIW (cancer risk and PM <sub>2.5</sub> )
1355 Fulton Street	2,510	2,520	2,520	2,780
1735 Fulton Street	1,980	2,000	2,000	2,310
1846 Grove Street	2,360	2,500	2,500	2,680
2750 Geary Boulevard	1,150	800	800	970
2670 Geary Boulevard	720	400	400	500
2800 Geary Boulevard	1,290	1,010	1,010	1,130
3330 Geary Boulevard	2,720	2,050	2,050	2,650
3657 Sacramento Street	3,060	2,640	2,640	2,790
709 Lyon Street	1,400	1,460	1,460	1,730

Many of the projects listed above would consist of demolition and/or new construction. Such activities would require the use of off-road diesel construction equipment that would emit DPM and TACs. Vehicle trips generated by cumulative projects would also increase DPM and TAC emissions, as would any stationary sources of TACs proposed by cumulative projects. Therefore, although the cumulative health risk impact at the residential and daycare MEI and MEIW is considered conservative for the reasons discussed above, it is also possible that health risks at the residential and daycare MEI and MEIW could be greater than what is presented in Table 3.A-10, p. 3.A-38, when considering other cumulative projects where quantitative health risk information is not available. However, most of the cumulative projects listed above are relatively small, with short construction periods. Further, all of the above projects are located more than 1,000 feet from the

proposed project resident and daycare MEI and MEIW, apart from 2750 and 2670 Geary Boulevard projects, and therefore outside the 1,000-foot radius recommended by the air district for cumulative health risk analysis. In general, air pollutant concentrations decrease with distance (sometimes quite quickly) and would therefore be expected to be lower (and in some cases substantially lower) at the project's MEIs and MEIW. For example, the 3333 California Street project was found to result in an excess cancer risk of 24 in 1 million at that project's MEI but would result in a cancer risk of less than 0.5 in 1 million and the proposed project resident and daycare MEI and MEIW.<sup>101</sup>

Therefore, when considering cumulative projects, the health risks at the residential and daycare MEI and MEIW would likely increase compared to existing plus project conditions; however, the proposed project's contribution to health risks would not change. For those locations that exceed the APEZ criteria of an excess cancer risk of 100 per 1 million and/or a PM<sub>2.5</sub> concentration of 10 µg/m<sup>3</sup>, including at the daycare MEI and MEIW, a significant cumulative health risk impact would occur. It should be noted that these receptor locations exceed the APEZ criteria under existing conditions, without the proposed project.

The next step is to determine whether the proposed project's health risk contribution would be cumulatively considerable. As discussed above, a PM<sub>2.5</sub> concentration of 0.3 µg/m<sup>3</sup> and excess cancer risk concentration of 10.0 per million persons exposed are the levels below which the air district considers new sources not to make a considerable contribution to cumulative health risks.<sup>102</sup> However, for those locations already meeting the APEZ criteria, a lower significance threshold is required to ensure that the proposed project's contribution to cumulative health risks would not be significant. In these areas, the proposed project's PM<sub>2.5</sub> concentration at or above 0.2 µg/m<sup>3</sup> or an excess cancer risk at or greater than 7.0 per million, would be a cumulatively considerable health risk contribution and the project would result in a significant cumulative impact.<sup>103</sup> As shown in Table 3.A-10, p. 3.A-38, the proposed project's health risk contribution at the resident and daycare MEI and the MEIW are substantially below, and do not exceed, the most restrictive health risk significance threshold of an excess cancer risk of 7 per 1 million persons exposed or PM<sub>2.5</sub> concentrations of 0.2 µg/m<sup>3</sup>. Thus, the proposed project's health risk impact would not be cumulatively considerable. Therefore, cumulative health risks from construction and operation of the proposed project would be **less than significant**. No mitigation measures are required.

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**Impact C-AQ-2: Construction and operation of the proposed project, in combination with cumulative projects, would not combine with other sources of odors that would adversely affect a substantial number of people. (Less than Significant)**

The cumulative projects listed in Impact C-AQ-1, above, would introduce a mix of new residential and commercial uses, but would not include uses that would generate new sources of odors, such as wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops,

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<sup>101</sup> San Francisco Planning Department, 3333 California Street Mixed Use Project Draft Environmental Impact Report, November 7, 2018, [https://sfplanning.s3.amazonaws.com/sfmea/2015-014028ENV\\_3333CaliforniaSt\\_DEIR\\_Volume01.pdf](https://sfplanning.s3.amazonaws.com/sfmea/2015-014028ENV_3333CaliforniaSt_DEIR_Volume01.pdf), accessed December 7, 2022.

<sup>102</sup> Bay Area Air Quality Management District, California Environmental Quality Act Guidelines (2017), [https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa\\_guidelines\\_may2017-pdf.pdf?la=en](https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en), accessed March 24, 2022.

<sup>103</sup> A 0.2 µg/m<sup>3</sup> increase in PM<sub>2.5</sub> would result in a 0.28 percent increase in non-injury mortality or an increase of about twenty-one excess deaths per 1,000,000 population per year from non-injury causes in San Francisco. This information is based on Jerrett M. et al., Spatial Analysis of Air Pollution and Mortality in Los Angeles, *Epidemiology* 16 (2005): 727–736. The excess cancer risk has been proportionally reduced to result in a significance criterion of 7 per million persons exposed.

rendering plants, or coffee roasting facilities. Therefore, the proposed project would not combine with cumulative projects to result in a significant cumulative odor impact, and this cumulative impact would be **less than significant**. No mitigation measures are necessary.

### 3.A.5 Conclusions

The refined health risk assessment prepared for the proposed project addresses all the concerns raised by EPS during the appeal of the previous CEQA exemption. The EPS technical memorandum submitted by the appellant on November 16, 2020, stated that the previous health risk analysis performed for the proposed project on October 30, 2020, was limited by using screening-level tools, considered only one toxic air contaminant, and underestimated certain parameters such as the auto and truck trip traffic generated by the proposed project. The EPS technical memorandum found that the increased cancer risk from the proposed project would exceed the applicable threshold. This is based on a screening analysis by EPS resulting in a “risk prioritization score” of 42.5, indicating that it would cause an excess cancer risk that would exceed 10 in 1 million.

As thoroughly evaluated in Appendix C.1, Ramboll analyzed the EPS technical memorandum and found that some of the modeling parameters used by EPS were unsupported and did not include justification for the initial vertical dimensions for volume, line, and area sources, receptor height, and inversion height changes for meteorological data. In contrast, the refined health risk assessment presented in this EIR and included as Appendix C.4 used modeling parameters recommended by the air district, OEHHA, U.S. EPA, and the planning department. PRC section 21082.2 states that “[a]rgument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous, or evidence of social or economic impacts which do not contribute to, or are not caused by, physical impacts on the environment, is not substantial evidence.” EPS did not justify the use of their modeling parameters, which are not consistent with the parameters recommended by the air district, OEHHA, U.S. EPA, and the planning department. Ramboll concluded that the findings of significant health impacts presented in the November 16, 2020, EPS report appear to be based on an incomplete analysis and to rely on outdated and/or incorrect methods that overestimate impacts (see Appendix C.1 for a detailed response regarding the modeling parameters EPS used in their analysis of the project’s air quality impact). In order to fully address any air quality-related concerns surrounding proposed project operation and construction, Ramboll performed a complete health risk assessment to understand the potential health impacts of the proposed project.

Should EPS be considered an air quality expert and should EPS present information in the future that the modeling parameters they used in the analysis presented in the November 16, 2020, report are valid, CEQA Guidelines section 15151 describes the standards for adequacy of an EIR and states “[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.” This EIR complies with section 15151 because it presents air quality and health risk results based on substantial evidence supported by guidance from the air quality agencies, discloses results from EPS concerning the proposed project’s air quality impacts, and discloses the main points of disagreements, which are the modeling parameters used.

## 3.B Noise

### 3.B.1 Introduction

This section describes the existing noise setting, outlines the regulatory framework applicable to operational noise resulting from the proposed project, evaluates the potential for operation of the proposed project to cause adverse noise impacts, and identifies mitigation measures to avoid or reduce potential adverse impacts.

A detailed analysis of the proposed project's noise and vibration impacts was included in the initial study (see Appendix A) and concluded that the proposed project would result in no impact related to groundborne noise or vibration and exposure to excessive noise levels near airports and a less than significant construction noise impact. The analysis also found that operation of the proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of applicable standards, primarily due to noise from the new mechanical equipment including the proposed cooling tower and outside air units (OSAs), resulting in a significant impact. However, with incorporation of **Mitigation Measure M-NO-3, Mechanical Equipment Noise Control**, which requires noise barriers around the cooling tower and lined ducting and/or silencers for the OSA units,<sup>104,105</sup> operational noise impacts would be less than significant. The initial study determined that cumulative noise impacts would be less than significant.

As discussed under EIR Section 1.E.3, following the publication of the NOP and initial study it was determined that the overall height of the proposed cooling tower (including its base) would be 23 feet tall rather than 21 feet, as analyzed in the initial study. This minor change to the proposed project affects the initial study operational noise analysis, requiring further analysis in this EIR. The noise levels from the 23-foot-tall cooling tower were analyzed at the property planes and at the childcare facility's rooftop outdoor space in a revised technical memorandum included in Appendix E.1; the findings are summarized in this section.<sup>106</sup> In addition, the cumulative noise impact analysis in this section has been revised based on the updated cumulative projects list in Table 3-1, p. 3-6. This section includes an updated operational analysis of the taller cooling tower and updated cumulative analysis which supersedes the following impact statements in Section E3, Noise, of the initial study (see Appendix A):

- **Impact NO-3:** The proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of applicable standards. (*Less than Significant with Mitigation*)
- **Impact C-NO-1:** The proposed project, in combination with cumulative projects, would not result in significant cumulative noise or vibration impacts. (*Less than Significant*)

In addition, **Mitigation Measure M-NO-3**, Mechanical Equipment Noise Control, has been modified to reflect the higher height of the proposed cooling tower.

As to all other noise subtopics, the initial study analysis remains accurate and is not addressed further in this EIR.

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<sup>104</sup> Sound attenuation recommendations were provided as part of an acoustical analysis.

<sup>105</sup> Salter, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations, Salter Project 21-0548, May 27, 2022 (revised September 28, 2022).

<sup>106</sup> Ibid.



As discussed in Section 1.E.2, NOP and Initial Study Comments, public comments on the NOP and initial study related to noise have been considered in this EIR. Table 1-1, p. 1-6, provides a summary of noise comments received and directs the reader to the location where specific information pertaining to the noise analysis is in this EIR and the initial study. One comment requested a quantitative analysis of the proposed project's construction noise. Such analysis is not required because the initial study determined that construction noise impacts would not be significant. As explained in the initial study, construction noise would be regulated by the noise ordinance (article 29 of the police code), construction activities would be temporary, lasting only 10 months, and construction activities would consist of mostly interior renovation, apart from the expansion of the rooftop mechanical equipment. Noise from interior renovation activities would be substantially reduced by the exterior walls. Refer to Appendix A, initial study, section E.3, pp. 34 to 35, for a more detailed analysis of the proposed project's less-than-significant construction noise impact.

The following analysis is based on the following appendix included in this EIR:

- Appendix E.1, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations (May 27, 2022, revised September 28, 2022)

### **3.B.2 Environmental Setting**

The ambient noise environment in the City and County of San Francisco is affected by a variety of noise sources, including auto traffic on arterial streets. The following section defines common acoustical terms, identifies noise sensitive receptors in the project vicinity, and describes the existing noise environment in the vicinity of the project site. The existing noise environment relies on information provided in a noise study prepared for the proposed project.<sup>107</sup>

**Table 3.B-1** defines common acoustical terms used in this section.

#### ***NOISE-SENSITIVE RECEPTORS***

Certain land uses are considered more sensitive to noise than others. Examples of these include residential areas, educational facilities, religious institutions, hospitals, childcare facilities, senior housing, hotels, and motels. The project site is located within the City Center shopping center, which contains primarily retail uses. However, levels 4 and 5 contain a daycare facility, which is considered a noise sensitive receptor. The daycare facility includes an outdoor playground on level 4, adjacent to the existing mechanical equipment for the vacant retail space (see Figure 2-2, p. 2-4, and Figure 2-4, p. 2-6). The proposed project would include replacement of existing heating, ventilation, and air conditioning (HVAC) equipment and the addition of refrigeration equipment in the mechanical penthouse, an expansion of the rooftop penthouse to accommodate the new equipment and the addition of a 23-foot-tall cooling tower between the existing mechanical penthouse and the daycare facility on levels 4 and 5 (see Figure 2-5, p. 2-8).

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<sup>107</sup> Salter, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations, Salter Project 21-0548, May 27, 2022 (revised September 28, 2022).

**Table 3.B-1 Definitions of Acoustical Terms**

Term	Definitions
Decibel, dB	A measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
A-Weighted Sound Level, dBA	The A-weighted sound pressure level, expressed in decibels (dB). Sometimes the unit of sound level is written as dBA. A weighting is a standard weighting that accounts for the sensitivity of human hearing to the range of audible frequencies.
Ambient Noise Level	The lowest sound level repeating itself during a minimum ten-minute period. The minimum sound level shall be determined with the noise source at issue silent, and in the same location as the measurement of the noise level of the source or sources at issue. The department of public health considers the ambient noise level, for purposes of enforcement of article 29 of the police code, under most conditions, the $L_{90}$ (the level of noise exceeded 90% of the time) to be a conservative representation of the ambient noise level.
$L_n$	The sound level exceeded for a stated percentage (n) of a specified measurement period. $L_{10}$ , $L_{50}$ , and $L_{90}$ are the levels exceeded 10, 50, and 90 percent of the time, respectively.
Equivalent Continuous Noise Level, $L_{eq}$	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time varying sound.
Day/Night Noise Level, $L_{dn}$	(Day-Night Average Sound Level) – A descriptor for a 24-hour A-weighted average noise level. DNL accounts for the increased acoustical sensitivity of people to noise during the nighttime hours. DNL penalizes sound levels by 10 dB during the hours from 10 p.m. to 7 a.m. DNL is sometimes written as $L_{dn}$ .

SOURCE: San Francisco Department of Public Health, *San Francisco Police Code Article 29: Regulation of Noise Guidelines for Noise Control Ordinance Monitoring and Enforcement* (December 2014), <https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf>, accessed May 4, 2022.

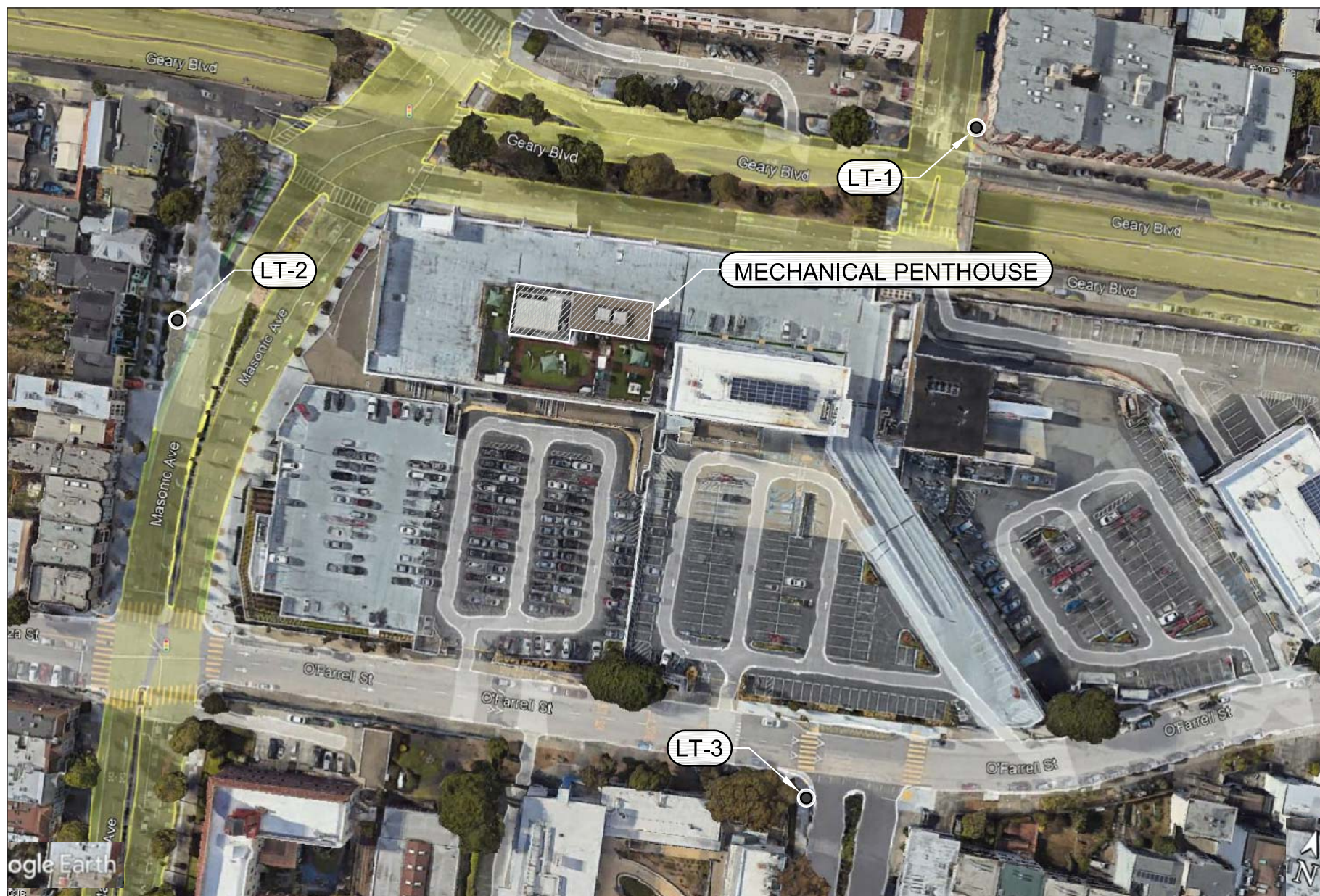
The surrounding neighborhood also contains noise sensitive land uses. Nearby noise sensitive land uses include residential buildings, the Kaiser San Francisco Medical Center, the Raoul Wallenberg Traditional High School, and the Epiphany Center, a recovery institution. Sagebrook Senior Assisted Living is also located approximately 0.1 mile northwest of the project site at 2750 Geary Boulevard and the University of San Francisco campus is located approximately 0.2 mile to the southwest of the project site. Therefore, the project site and surrounding area contains land uses that are sensitive to noise.

### **AMBIENT NOISE LEVELS**

Noise monitoring was conducted as part of the noise study to establish the existing ambient noise environment around the project site. Three long-term (24-hour) and three short term noise measurements were conducted on and near the project site on January 25 and 26, 2022.<sup>108</sup> As shown in **Figure 3.B-1**, long-term measurement 1 (LT-1) is located near the north property plane at Geary Boulevard and Presidio Avenue, LT-2 is located near the west property plane along Masonic Avenue, and LT-3 is located along the south

<sup>108</sup> Noise monitoring occurred during the COVID-19 pandemic, which may result in lower than pre-pandemic ambient noise levels from reduced traffic or construction noise but reflects the best information available under current conditions. A lower ambient noise level would result in a conservative (worst-case) evaluation of the proposed project's potential noise impact as there would be a greater potential for increased ambient noise levels attributable to the proposed project.





SOURCE: Salter 2022

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 3.B-1**  
**LONG-TERM NOISE MEASUREMENT LOCATIONS**

property plane along O’Farrell Street and Anzavista Avenue. Long term noise measurement data are summarized in **Table 3.B-2**. As shown in Table 3.B-2, the long-term noise measurements indicate that ambient noise levels in the project site vicinity range from approximately 61 to 69 dBA  $L_{eq}$  and 42 to 47 dBA  $L_{90}$ . However, pursuant to San Francisco Police Code Article 29 (discussed below), ambient noise levels are considered to be no less than 45 dBA; thus,  $L_{90}$  ambient noise levels around the project site range from 45 to 47 dBA.<sup>109</sup> The long-term measurements show daily noise levels of 63 dBA to 71 dBA  $L_{dn}$ . Vehicle traffic on surrounding roadways is the primary noise source at these locations.

**Table 3.B-2 Ambient Noise Monitoring Results, dBA**

Location No.	Location Description	Minimum $L_{90}$ (1 hr) <sup>a</sup>	DNL <sup>b</sup>	Average Daytime $L_{eq}$ (1 hr) <sup>c</sup>	Average nighttime $L_{eq}$ (1 hr) <sup>c</sup>
LT-1	Geary Boulevard/ Presidio Avenue	47	71	69	61
LT-2	Masonic Avenue	42	70	69	60
LT-3	O’Farrell Street/ Anzavista Avenue	46	63	61	52

SOURCE: Salter, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations, Salter Project 21-0548 (May 27, 2022, Revised September 28, 2022)

<sup>a</sup>  $L_{90}$  is the fast A-weighted noise level equaled or exceeded by a fluctuating sound level for 90 percent of a stated time period.

<sup>b</sup> DNL is a descriptor for a 24-hour A-weighted average noise level. DNL accounts for the increased acoustical sensitivity of people to noise during the nighttime hours. DNL penalizes sound levels by 10 dB during the hours from 10 p.m. to 7 a.m.

<sup>c</sup>  $L_{eq}$  is the equivalent steady-state sound level containing the same total acoustical energy as a time-varying signal over a given sample period.

Noise from the existing mechanical equipment serving the project space does not contribute to the noise environment at these locations. Therefore, three short term noise measurements were conducted at the childcare facility’s rooftop outdoor playground to quantify the noise environment near the existing mechanical equipment. **Figure 3.B-2** shows the locations of the three short-term noise measurements. Existing mechanical equipment noise ranges between 51 and 57 dBA at the childcare facility’s outdoor playground. The overall existing equipment noise is clearly audible. The equipment specific to the former tenant at the project space (Best Buy) contributes somewhat to the overall noise levels.

### 3.B.3 Regulatory Framework

#### FEDERAL REGULATIONS

##### U.S. ENVIRONMENTAL PROTECTION AGENCY

In 1972, Congress passed the Noise Control Act (42 United States Code section 4901, et seq.) to promote limited noise environments in support of public health and welfare. It also established the United States Environmental Protection Agency (U.S. EPA) Office of Noise Abatement and Control to coordinate federal noise control activities. U.S. EPA established guidelines for noise levels that would be considered safe for community exposure without the risk of adverse health or welfare effects, which are summarized in **Table 3.B-3**, p. 3.B-7.

<sup>109</sup> City and County of San Francisco, San Francisco Police Code section 2901(a) (2012), [https://codelibrary.amlegal.com/codes/san\\_francisco/latest/sf\\_police/0-0-0-6469](https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_police/0-0-0-6469), accessed May 27, 2022.





SOURCE: Salter 2022

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 3.B-2**  
**SHORT-TERM NOISE MEASUREMENT LOCATIONS**

**Table 3.B-3 Summary of Noise Levels Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety**

Effect	Level	Area
Hearing loss	< 70 dBA <sup>a</sup> (Leq, 24 hour)	All areas
Outdoor activity interference and annoyance	< 55 dBA (Ldn)	Outdoor residential areas and farms as well as other outdoor areas where people spend varying amounts of time and places where quiet is a basis for use
Outdoor activity interference and annoyance	< 55 dBA (Leq, 24 hour)	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	< 45 dBA (Ldn)	Indoor residential areas
Indoor activity interference and annoyance	< 45 dBA (Leq, 24 hour)	Other indoor areas with human activities, such as schools, etc.

SOURCE: U.S. EPA, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974, <http://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.pdf>, accessed April 16, 2021.

NOTE:

<sup>a</sup> Yearly average equivalent sound levels in decibels; the exposure period that results in hearing loss at the identified level is 40 years.

The U.S. EPA found that to prevent hearing loss over the lifetime of a sensitive receptor, the yearly average Leq should not exceed 70 dBA, and the Ldn should not exceed 55 dBA in outdoor activity areas or 45 dBA indoors to prevent interference and annoyance.<sup>110</sup> In 1982, noise control was largely passed to state and local governments.

### **U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**

The U.S. Department of Housing and Urban Development has set the following guidelines<sup>111</sup> for acceptable exterior noise levels in residential areas:

- Acceptable – 65 dBA Ldn or less
- Normally unacceptable – exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn
- Unacceptable – exceeding 75 dBA Ldn

These guidelines are consistent with those provided in the San Francisco General Plan, Environmental Protection Element, Land Use Compatibility Chart for Community Noise (see below). Housing and Urban Development regulations also include a goal (not a standard) that interior noise levels should not exceed 45 dB Ldn.<sup>112</sup> Sound attenuating features such as barriers or sound attenuating building materials shall be used to achieve the interior noise goal where feasible. An acoustically well-insulated building with windows and doors closed can provide 30–35 dB of noise attenuation, while more-conventional residential

<sup>110</sup> U.S. Environmental Protection Agency, *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*, March 1974.

<sup>111</sup> U.S. Department of Housing and Urban Development, *Noise Assessment Guidelines*, <https://www.hudexchange.info/sites/onecpd/assets/File/Noise-Guidebook-Chapter-5.pdf>, accessed April 28, 2021.

<sup>112</sup> Ibid.



construction provides 20–25 dB of noise reduction with windows closed and only about 15 dB of noise reduction when windows are open; therefore, if the exterior noise environment is classified as “acceptable,” according to Housing and Urban Development standards, the interior noise environment should not exceed 45 dB Ldn.<sup>113</sup>

## **STATE REGULATIONS**

### ***NOISE***

#### **CALIFORNIA BUILDING STANDARDS CODE**

The California Building Standards Code (California Code of Regulations Title 24) requires that walls and floor/ceiling assemblies separating dwelling units from each other, or from public or service areas, have a Sound Transmission Class (STC) of at least 50, meaning they can reduce noise by a minimum of 50 dB.<sup>114</sup> It also specifies a maximum interior noise limit of 45 CNEL in habitable rooms.<sup>115</sup>

#### ***CITY AND COUNTY OF SAN FRANCISCO***

##### **SAN FRANCISCO GENERAL PLAN**

The Environmental Protection Element of the San Francisco General Plan contains Land Use Compatibility Guidelines for Community Noise for determining the compatibility of various land uses with different noise levels. These guidelines, which are similar to the state guidelines set forth by the Governor’s Office of Planning and Research, indicate maximum acceptable noise levels for various land uses. For parks and playgrounds, noise levels of Ldn 67.5 dBA or lower are considered “satisfactory, with no special noise insulation requirements.” For the land use category of “school classrooms, libraries, churches, hospitals, nursing homes, etc.,” noise levels of Ldn 62.5 dBA or lower are considered “satisfactory, with no special noise insulation requirements.”<sup>116</sup>

##### **SAN FRANCISCO MUNICIPAL CODE – NOISE ORDINANCE**

In San Francisco, regulation of noise is addressed in San Francisco Police Code article 29 (noise ordinance), which states the City’s policy is to prohibit unnecessary, excessive, and offensive noise from all sources subject to police power. Noise ordinance section 2900 states the following with regard to community noise levels: “It shall be the policy of San Francisco to maintain noise levels in areas with existing healthful and acceptable levels of noise and to reduce noise levels, through all practicable means, in those areas of San Francisco where noise levels are above acceptable levels as defined by the World Health Organization’s Guidelines on Community Noise.”

Noise ordinance sections 2907 and 2908 regulate construction equipment and construction work at night, while section 2909 provides limits for any machine, or device, music or entertainment, or any combination of such sources. Sections 2907 and 2908 are enforced by the San Francisco Public Works, and section 2909 is

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<sup>113</sup> Ibid.

<sup>114</sup> California Code of Regulations section 1206.2.

<sup>115</sup> California Code of Regulations section 1206.4

<sup>116</sup> San Francisco Planning Department, *San Francisco General Plan Environmental Protection Element* (2004), Land Use Compatibility Chart for Community Noise, [https://generalplan.sfplanning.org/l6\\_Environmental\\_Protection.htm](https://generalplan.sfplanning.org/l6_Environmental_Protection.htm), accessed May 27, 2022.

enforced by the San Francisco Department of Public Health. Summaries of these and other relevant sections are presented below.

Section 2908 of the noise ordinance prohibits construction work between 8 p.m. and 7 a.m., if noise would exceed the ambient noise level by 5 dBA at the project property line, unless a special permit is authorized by the director of public works or the director of building inspection. The proposed project is required to comply with section 2907 and 2908 of the city's noise ordinance.

Section 2909 of the noise ordinance regulates noise from mechanical equipment and other similar sources. This includes all equipment that is installed on commercial/industrial and residential properties. Section 2909 states in subsection (b) that mechanical equipment operating on commercial or industrial property must not produce a noise level more than 8 dBA above the ambient noise level at the property plane. Section 2909 also states in subsection (d) that no fixed (permanent) noise source (as defined by the noise ordinance) may cause the noise level inside any sleeping or living room in a dwelling unit on residential property to exceed 45 dBA between 10 p.m. and 7 a.m. or 55 dBA between 7 a.m. and 10 p.m. when windows are open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

### 3.B.4 Impacts and Mitigation Measures

#### SIGNIFICANCE CRITERIA

This section provides the impact analysis related to noise and vibration for the proposed project. The following applicable criteria were used to determine whether the proposed project would result in a significant operational impact related to noise. The proposed project would have a significant effect related to noise and vibration if it would result in the:

- 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

As stated in the introduction to this section, the initial study in Appendix A determined the proposed project would have no impact related to groundborne vibration or noise, and exposure to excessive noise levels near airports and would have a less than significant construction noise impact. Given that the proposed project's construction activities have not changed since publication of the NOP and initial study, the groundborne vibration or noise and construction noise analysis in the initial study remains valid, and the impact analysis below focuses solely on operation-related noise impacts.

#### APPROACH TO ANALYSIS

The project sponsor proposes to renovate a vacant retail space formerly occupied by Best Buy, above an existing Target store within the City Center shopping center. The proposed project would consist of a 49,825-square-foot grocery store with a 25,030-square-foot sales floor, as well as 24,975 square feet for other uses, including seating areas; checkout; self-checkout; and back-of-house uses such as offices, restrooms, freezers, kitchens, and storage areas for online orders. The store would have a lounge and seating area with capacity to seat up to 50 people. Construction of the proposed project would be limited to interior renovations within the existing vacant retail space, replacement of existing heating, ventilation, and air conditioning (HVAC) equipment in the mechanical penthouse, an approximately 700-square-foot horizontal expansion of the rooftop penthouse to accommodate the new HVAC equipment, and new exterior signage. The proposed

project would not require changes to the existing parking area or roadways. The existing 117 vehicle parking spaces accessed from O'Farrell Street would be available for Whole Foods customers. Loading and deliveries would occur from an existing loading dock accessible via O'Farrell Street, between Anzavista Avenue and Lyon Street.

## **TRAFFIC NOISE**

With respect to traffic noise, a 3 dBA increase is barely perceptible to people, while a 5 dBA increase is readily noticeable; an increase of less than 3 dBA from continuous noise sources of similar character is generally not perceptible outside of controlled laboratory conditions.<sup>117</sup> A proposed project that results in a doubling of the baseline number of vehicular trips per day would potentially result in a perceptible traffic noise increase of 3 dBA.

## **MECHANICAL EQUIPMENT NOISE**

A noise study, included as Appendix E.1, was conducted to evaluate noise from the existing mechanical equipment and the proposed project's mechanical equipment, described above, and to determine whether the proposed mechanical equipment noise would meet the noise limits in noise ordinance section 2909(b) and (d) (described above).<sup>118</sup>

Noise ordinance limits are based on noise levels at the property plane (section 2909(b)), the boundary of the property line including the vertical dimension; which is the entire City Center property, and at residential interiors (section 2909(d)). Additional analysis was necessary to determine the impact of mechanical equipment noise at the daycare facility outdoor playground on level 4 of the City Center. The City and County of San Francisco General Plan includes land use compatibility standards for community noise for playgrounds and school classrooms. For parks and playgrounds, noise levels of Ldn 67.5 dBA or lower are considered "satisfactory, with no special noise insulation requirements." For the land use category of "school classrooms, libraries, churches, hospitals, nursing homes, etc.," noise levels of Ldn 62.5 dBA or lower are considered "satisfactory, with no special noise insulation requirements."<sup>119</sup> Here, the lower standard of 62.5 dBA was applied at the daycare facility because the children would likely be using the outdoor playground multiple hours a day and the playground could also be used as an outdoor learning space. Therefore, the noise study evaluated mechanical equipment noise at the daycare facility and compared it with a noise level of 62.5 dBA.

In summary, the noise study evaluated the proposed project's mechanical equipment and compared the resulting noise levels against the following three criteria:

- Noise ordinance section 2909(b) – mechanical equipment operating on commercial or industrial property must not produce a noise level more than 8 dBA above the ambient noise level at the property plane.
- Noise ordinance section 2909(d) – no fixed (permanent) noise source may cause the noise level inside any sleeping or living room in a dwelling unit on residential property to exceed 45 dBA between 10 p.m.

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<sup>117</sup> California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, pp. 2-44 to 2-45, <https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf>, accessed May 27, 2022.

<sup>118</sup> Salter, 2675 Geary Boulevard – Whole Foods Market Noise Measurement Results and Recommendations, Salter Project 21-0548, September 28, 2022.

<sup>119</sup> San Francisco Planning Department, *San Francisco General Plan Environmental Protection Element* (2004), Land Use Compatibility Chart for Community Noise, [https://generalplan.sfplanning.org/l6\\_Environmental\\_Protection.htm](https://generalplan.sfplanning.org/l6_Environmental_Protection.htm), accessed May 27, 2022.

and 7 a.m. or 55 dBA between 7 a.m. and 10 p.m. when windows are open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

- San Francisco General Plan Land Use Compatibility – noise levels of Ldn 62.5 dBA or lower are considered satisfactory, with no special noise insulation requirements.

The impact evaluation below presents the results of the noise analysis and compares the proposed project's mechanical equipment noise levels against each of the criteria above. This analysis supersedes Impact NO-3 in Appendix A, initial study section E3. Noise.

## IMPACT EVALUATION

**Impact NO-3: The proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of applicable standards. (*Less than Significant with Mitigation*)**

Operation of the proposed project would generate traffic, which could increase noise levels in the project vicinity. Additionally, the proposed project's mechanical equipment would generate noise. Project-generated noise from these sources is evaluated below.

### TRAFFIC NOISE

The proposed project would generate approximately 2,836 vehicle trips per day with approximately 224 of those trips occurring during the p.m. peak hour (defined as the one-hour period with the highest volume of vehicular traffic).<sup>120</sup> The existing parking lot C on level 3, which contains 117 parking spaces, would be available for Whole Foods customers. Vehicles would access parking lot C from the curb cut off O'Farrell Street, via Masonic Avenue.

The City Center's primary frontages are along Geary Boulevard and Masonic Avenue; both carry high volumes of traffic. Traffic counts collected in 2017 show that the intersection of Geary Boulevard and Masonic Avenue carries over 3,000 vehicles during the p.m. peak hour.<sup>121</sup> Thus, the proposed project's 224 p.m. peak hour vehicle trips would not double traffic volumes and therefore would not result in a perceptible increase in traffic noise (approximately 3 dBA). Noise from traffic generated by the proposed project would be ***less than significant***. No mitigation measures are necessary.

### MECHANICAL EQUIPMENT NOISE

The proposed project includes replacement of the existing heating, ventilation, and air conditioning (HVAC) equipment and installation of new refrigeration equipment, including a new 23-foot-tall cooling tower, to support the proposed grocery store use. All of this equipment would continue to be located on level 4 of the City Center shopping center, which is on the roof of level 3 of the project site. The new cooling tower would be installed to the east of the existing HVAC equipment and penthouse enclosure (see Figure 2-5, p. 2-8). The proposed project would also expand the existing 930-square-foot rooftop mechanical penthouse on level 4

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<sup>120</sup> San Francisco Planning Department, *Notice of Preparation of Environmental Impact Report*, Whole Foods at 2675 Geary Boulevard Project, p. 36, June 22, 2022. (Included as Appendix A to this EIR.)

<sup>121</sup> San Francisco Planning Department, *3333 California Street Mixed-Use Project Draft Environmental Impact Report*, Volume 2c: Appendices D–G, November 7, 2018, Appendix D, Transportation and Circulation Calculation Details and Supporting Information, [2015-014028ENV\\_3333CaliforniaSt\\_DEIR\\_Volume02\\_AppendixD-G.pdf](https://sfplanning.s3.amazonaws.com/014028ENV_3333CaliforniaSt_DEIR_Volume02_AppendixD-G.pdf) (sfplanning.s3.amazonaws.com), accessed May 27, 2022.

to approximately 1,630 square feet to accommodate new HVAC and refrigeration equipment. All existing and proposed enclosure walls are/would be 10 feet tall.

The area around the new cooling tower would be open-air, or without a roof. The cooling tower would extend above the roofline of the existing penthouse (see Figure 2-4, p. 2-6). All other areas of the rooftop mechanical penthouse would be enclosed with a new roof.

### **EXISTING AND PROPOSED PROJECT MECHANICAL EQUIPMENT NOISE**

As discussed above, the noise analysis determined that the existing mechanical equipment noise ranges between 51 and 57 dBA at the daycare outdoor playground. The loudest new equipment at that location would be the cooling tower. Noise from the cooling tower is calculated to be 71 dBA, on its own, at the outdoor playground, which does not factor in any noise attenuation, such as from noise barrier walls. Noise from other proposed mechanical equipment is calculated to be up to 57 dBA at the north property plane.

### **NOISE ORDINANCE SECTION 2909(B)**

The San Francisco Department of Public Health's *Guidelines for Noise Control Ordinance Monitoring and Enforcement* state that under most conditions, the  $L_{90}$ , the level of noise exceeded 90 percent of the time, is a conservative representation of the ambient noise environment.<sup>122</sup> The analysis of consistency with the noise ordinance uses the  $L_{90}$  noise levels as representative of ambient noise. As shown in Table 3.B-2, p. 3.B-5, the measured minimum  $L_{90}$  noise levels are 47 dBA near the north property line, 42 dBA at near the west property line, and 46 dBA near the south property line. Mechanical equipment operating on a commercial or industrial property may not increase noise levels more than 8 dBA above the ambient noise levels. Therefore, the section 2909(b) noise limits for the cooling tower and other mechanical equipment are defined as 55 dBA along the north property plane, 53 dBA along the west property plane,<sup>123</sup> and 54 dBA along the south property plane. The noise analysis determined that noise from the project's mechanical equipment would be no higher than 48 dBA along the west property plane, and 52 dBA along the south property plane. These calculated levels meet the noise ordinance section 2909(b) commercial and industrial property noise limits. However, noise levels would be 66 dBA along the north property plane without sound attenuation, which would exceed the 55 dBA noise limit, resulting in a **significant** impact.<sup>124</sup>

**Mitigation Measure M-NO-3, Mechanical Equipment Noise Control**, discussed further below, has been identified to reduce noise from the proposed project's cooling tower and other mechanical equipment.

### **NOISE ORDINANCE SECTION 2909(D)**

The nearest residence to the proposed project is located at 2580–2590 Geary Boulevard, approximately 280 feet northeast of the proposed project's mechanical equipment. At this distance, noise from the proposed project's mechanical equipment is calculated to be 41 dBA inside the nearest residence, assuming open windows. This calculated noise level meets the noise ordinance section 2909(d) residential interior daytime and nighttime noise limits of 55 dBA and 45 dBA, respectively.

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<sup>122</sup> City and County of San Francisco, *San Francisco Police Code Article 29: Regulation of Noise Guidelines for Noise Control Ordinance Monitoring and Enforcement, December 2014 Guidance (Supersedes all previous Guidance)* (December 2014), p. 20, <https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf>, accessed May 27, 2022.

<sup>123</sup> As mentioned above, San Francisco Police Code article 29 ambient noise levels are considered to be no less than 45 dBA. 45 dBA plus 8 dBA results in a 53 dBA noise limit at the west property plane.

<sup>124</sup> Note that this assumes all project equipment to be operating simultaneously.

## GENERAL PLAN LAND USE COMPATIBILITY

As discussed above, noise from the proposed project's enclosed mechanical equipment is calculated to be 57 dBA and would meet the general plan land use compatibility standard for school classrooms of 62.5 dBA. However, noise from the cooling tower is calculated to be 71 dBA at the outdoor playground. This level exceeds the general plan land use compatibility standard for school classrooms of 62.5 dBA. Noise levels are calculated to be highest at the portion of the outdoor area nearest the new equipment (i.e., the northeast corner of the childcare facility's outdoor area). Compared to the existing mechanical equipment noise, the new equipment noise could be perceived as more than twice as loud. Therefore, without sound attenuation, the proposed project's mechanical equipment noise would be **significant**. Mitigation Measure M-NO-3 has been identified to reduce noise from the proposed project's cooling tower and other mechanical equipment.

**Mitigation Measure M-NO-3: Mechanical Equipment Noise Control.** In order to reduce mechanical equipment noise, the project sponsor shall install noise barriers along the south, west, north, and east sides of the proposed cooling tower to block the line of sight between the cooling tower and daycare facility's outdoor playground and to attenuate noise at the north property plane.

The noise barriers shall include, at a minimum, all of the following specifications:

- Noise Barrier South of Cooling Tower:
  - A total height of approximately 19 feet (an additional 9 feet on top of the 10-foot-tall mechanical penthouse enclosure walls);
    - A solid barrier with a weight of at least 3 pounds per square foot (psf) and solid without any gaps; and
  - Sound absorptive material on the side facing the mechanical equipment.
- Noise Barrier North of Cooling Tower (extending at least 10 feet from the northwest and northeast corners to the south):
  - A total height of approximately 26 feet (an additional 16 feet on top of the 10-foot-tall mechanical penthouse enclosure walls);
    - A solid barrier with a weight of at least 3 pounds per square foot (psf) and solid without any gaps; and
  - Sound absorptive material on the side facing the mechanical equipment.
- Acoustical louvers shall be located at the section of the enclosure east of the cooling tower meeting the minimum insertion loss (noise reduction), as shown below.

	63 Hertz (Hz)	125 Hz	250 Hz	500 Hz	1 kilohertz (kHz)	2 kHz	4 kHz
Acoustical Louver Minimum Insertion Loss (dB)	—	8	7	11	13	10	8

- The outside air (OSA) units shall include:
  - 5 feet of internally lined duct with 1-inch-thick glass fiber duct lining between each of the OSA units and the outside air openings on the penthouse roof; or



- As an alternative to an internally lined duct, duct silencers may be provided at the same duct segments described above. Each of the silencers shall meet the minimum insertion loss as shown below.

	63 Hertz (Hz)	125 Hz	250 Hz	500 Hz	1 kilohertz (kHz)	2 kHz	4 kHz
Silencer Minimum Insertion Loss (dB)	—	—	6	6	12	10	6

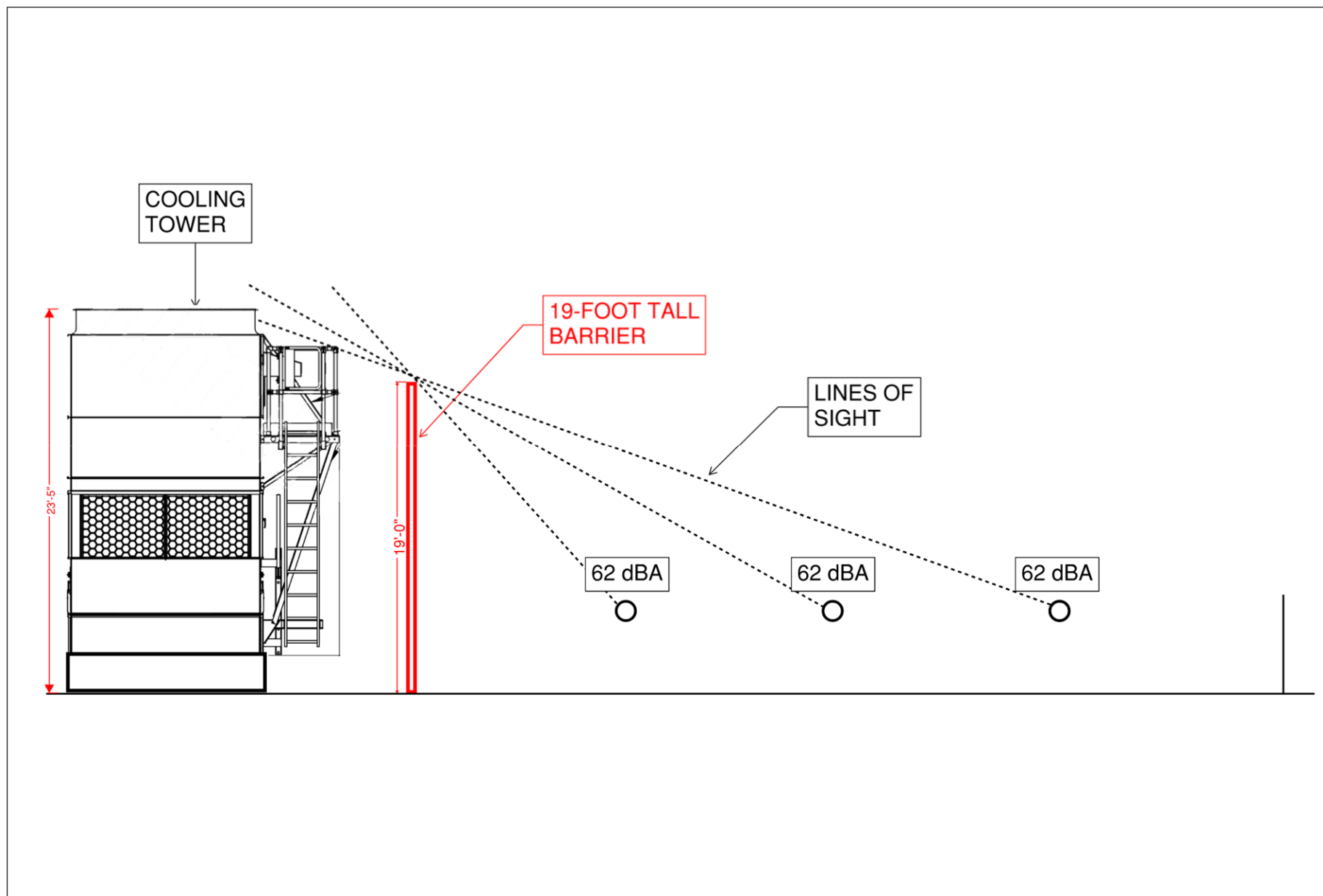
In lieu of the above, the project sponsor may install alternative noise control measures provided the sponsor submits documentation demonstrating that noise from the alternative measures would not exceed 62.5 dBA at the daycare facility's outdoor playground and 55 dBA at the north property plane, on level 4 of City Center.

Upon installation of the proposed project's mechanical equipment and required noise control measures, the project sponsor, with approval from the daycare facility, shall take noise measurements of the equipment at various locations within the outdoor playground to confirm that the project's mechanical equipment noise does not exceed 62.5 dBA. Noise measurements shall also be taken at the north property plane to confirm that noise levels do not exceed 55 dBA. Noise measurements shall be provided to the planning department prior to receipt of a certificate of occupancy. Should noise measurements indicate that the project's mechanical equipment noise exceeds 62.5 dBA at the daycare facility's outdoor playground or 55 dBA at the north property plane, the project sponsor, with an acoustical consultant, shall install additional noise attenuation measures necessary to ensure that noise levels do not exceed 62.5 dBA and 55 dBA, at the respective locations. Any additional noise attenuation measures shall be approved by the planning department, installed, and verified as not exceeding 62.5 dBA at the outdoor playground and 55 dBA at the north property plane, prior to receiving a certificate of occupancy.

### **SIGNIFICANCE AFTER MITIGATION**

The noise study determined that with implementation of Mitigation Measure M-NO-3, noise from the proposed project's cooling tower would not exceed 62.5 dBA at the daycare facility outdoor playground. The noise study found that at areas within the daycare facility's outdoor playground near the cooling tower, the 19-foot-tall barrier completely blocks the line-of-sight to the equipment. The barrier reduces cooling tower noise alone by 11 dB at this location. With the barrier, the mitigated noise level would be 62 dBA at this location. At areas of the outdoor playground farther away from the cooling tower, the barrier partially blocks the line-of-sight, reducing cooling tower noise by 5 dB. With the noise reduction provided by the barrier and the increased distance from the equipment, the noise level at these areas would also be 62 dBA. **Figure 3.B-3** shows the noise barrier, line-of-sight to locations within the outdoor playground and resulting noise levels.

The noise study determined that with implementation of Mitigation Measure M-NO-3, the noise barrier north of the cooling tower (extending 10 feet from the northwest and northeast corners to the south), the acoustical louvers, and the noise attenuation equipment installed on the OSA units would reduce the proposed project's cooling tower and other mechanical equipment mechanical noise to 55 dBA at the north property plane.



SOURCE: Salter, 2022

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 3.B-3**

**19-FOOT-TALL NOISE BARRIER AND CALCULATED NOISE LEVELS AT OUTDOOR SPACE**

The project sponsor has agreed to Mitigation Measure M-NO-3. As demonstrated above, with implementation of Mitigation Measure M-NO-3, the proposed project's mechanical equipment noise would not exceed 62.5 dBA, the level determined to be satisfactory for school classrooms pursuant to the San Francisco General Plan Land Use Compatibility Guidelines. In addition, noise levels would not exceed 55 dBA (8 dBA above ambient noise levels) at the north property plane consistent with the commercial and industrial property noise limits included in noise ordinance section 2909(b). Therefore, the proposed project's mechanical equipment noise would be ***less than significant with mitigation***.

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**Impact C-NO-1: The proposed project, in combination with cumulative projects, would not result in significant cumulative noise or vibration impacts. (*Less than Significant*)**

Since the proposed project would result in no impact with respect to groundborne noise or vibration, the proposed project would have no potential to combine with other nearby projects to result in a cumulative groundborne noise or vibration impact (see initial study Section E.3, Noise).

The geographic context for cumulative noise impacts is considered localized because noise attenuates (reduces) with distance from the noise source. As shown in Table 3-1, p. 3-6, and depicted in Figure 3-1, p. 3-8, there are currently four cumulative development projects within an approximately 0.25-mile radius of the project site. These projects may be under construction at the same time as the proposed project, and each would also add new sources of noise to the area once completed (e.g., traffic noise and/or mechanical equipment noise). However, the closest cumulative project is at 2670 Geary Boulevard, approximately 200 feet northwest of the project site. The projects at 2750 Geary Boulevard and 2800 Geary Boulevard are even further away from the project site. The fourth project within 0.25-mile of the project site is the Geary Corridor BRT improvements, which include red bus-only lanes, signal priority for buses, expanded rapid and local bus service, and a suite of safety improvements such as sidewalk extensions, accessible curb ramps, and protected left turn signals.

The proposed project's construction activities would occur for 10 months and would largely consist of interior renovation and minor exterior work; noise from interior construction is attenuated by the building itself. Given the limited scope of the project's exterior construction activity and that all construction activity within San Francisco is required to comply with section 2907 and 2908 of the police code (noise ordinance), which limits noise from construction equipment and generally prohibits nighttime construction without a special permit, the proposed project in combination with cumulative projects would not result in a significant cumulative construction noise impact.

Similarly, the proposed project's mechanical equipment and mechanical equipment from cumulative projects would be fairly localized, would attenuate with distance, and would be required to comply with the noise limits in section 2909 of the police that limit noise levels at the property plane and at residential interiors. Therefore, mechanical equipment noise from the proposed project combined with that from cumulative projects would not cause a significant cumulative noise impact.

Lastly, the cumulative projects would incrementally increase vehicle trips on nearby roadways throughout the day. Vehicle trips from the proposed project and cumulative projects would be distributed along the local roadway network. Given the high existing vehicle volumes along Geary Boulevard and Masonic Avenue, for example, the proposed project combined with the cumulative projects, would not result in a doubling of

traffic volumes and therefore would not result in a noticeable increase (3 dBA) in ambient noise levels. For the reasons described above, the proposed project in combination with cumulative projects would result in a ***less than significant*** cumulative noise impact. No mitigation measures are necessary.

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## CHAPTER 4

# OTHER CEQA ISSUES

This chapter discusses the following topics in relation to the proposed project: growth inducement potential, the potential for the proposed project to result in urban decay, significant environmental effects that cannot be avoided if the project is implemented, significant irreversible environmental changes that would result if the proposed project were implemented, and areas of known controversy and issues to be resolved.

### 4.A Growth-Inducing Impacts

This section analyzes the growth-inducement potential of the proposed project, as required by California Environmental Quality Act (CEQA) Guidelines section 15126.2(e). A project is considered growth inducing if it would directly or indirectly foster substantial employment or population growth, or the construction of a substantial number of additional housing units. Examples of projects that would be likely to result in significant adverse growth inducement include extensions or expansions of infrastructure systems beyond what is needed to serve planned growth, and development of new residential subdivisions in areas that are sparsely developed or undeveloped.

The Association of Bay Area Governments (ABAG) prepares projections of employment for the Bay Area. The latest projections were prepared as part of Plan Bay Area 2050. Between 2015 and 2050, Plan Bay Area 2050 forecasts that the number of total jobs in the city will increase from 682,000 to 918,000, or a total growth of 236,000 new jobs.<sup>125</sup> The projected employment increase of 200 jobs at the project site would represent less than 0.01 percent of this increase. Employment under the proposed project is unlikely to attract new residents to San Francisco because such jobs are typically filled by existing residents in the area. Therefore, it is anticipated that most of the employees would live in San Francisco (or nearby communities) and that the proposed project would not generate demand for new housing to accommodate new employees. This incremental increase in employment would not exceed the employment growth identified by the Association of Bay Area Governments. Therefore, this employment growth is anticipated under current planning projections created for the city and would not be significant.

The project site is a vacant retail space within the City Center shopping center, which was constructed in 1961. The project site has been served by roads and utilities infrastructure since that time. The proposed project would not extend any roads or other infrastructure into undeveloped areas where roads or other infrastructure currently do not exist, which could indirectly induce population growth. In addition, the proposed project would not increase population growth and therefore would not have a direct or indirect growth-inducing impact.

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<sup>125</sup> Association of Bay Area Governments and Metropolitan Transportation Commission, The Final Blueprint: Growth Pattern, *Plan Bay Area 2050*, [https://www.planbayarea.org/sites/default/files/FinalBlueprintRelease\\_December2020\\_GrowthPattern\\_Jan2021Update.pdf](https://www.planbayarea.org/sites/default/files/FinalBlueprintRelease_December2020_GrowthPattern_Jan2021Update.pdf), accessed November 23, 2021.



## 4.B Urban Decay

### 4.B.1 Introduction

In its role as the lead agency, the San Francisco Planning Department conducts environmental review of proposed development projects under the California Environmental Quality Act (CEQA) consistent with the CEQA statutes (Public Resources Code sections 21000–21189),<sup>126</sup> the CEQA Guidelines (California Code of Regulations title 14, division 6, chapter 3, sections 15000–15387),<sup>127</sup> and chapter 31 of the Administrative Code.<sup>128</sup> San Francisco Administrative Code chapter 31 directs the planning department to identify the environmental effects of a project using as its base the environmental checklist form set forth in the CEQA Guidelines, Appendix G, as modified by the San Francisco Planning Department.

Currently, the topic of urban decay is not specifically identified in the CEQA statutes or guidelines, the Appendix G checklist, or the City’s initial study checklist. However, potential impacts related to urban decay have been raised as part of several recent court cases and are generally considered to be within the purview of environmental impact analysis under CEQA. The published decisions for these cases have not resulted in legislative amendments to the CEQA statutes or guidelines; nor have they established significance criteria or thresholds of significance for urban decay impacts or added a topic or checklist question(s) to the Appendix G checklist.

As used in CEQA, the term “urban decay” was introduced by the Court of Appeal in the case entitled *Bakersfield Citizens for Local Control v. City of Bakersfield (Bakersfield)* (2004) 124 Cal.App.4th 1184. In *Bakersfield*, the court considered allegations that the EIRs prepared for two shopping centers, each with a Wal-Mart “Supercenter,” failed to consider the projects’ individual and cumulative potential to indirectly cause urban/suburban decay by precipitating a downward spiral of store closures and long-term vacancies in existing shopping centers.

In subsequent legal challenges, including *Chico Advocates for a Responsible Economy v. City of Chico (Chico Advocates)* (2019), 40 Cal.App.5th 839, 843, and *Joshua Tree Downtown Bus. All. v. County of San Bernardino (Joshua Tree)* (2016) 1 Cal. App. 5th 677, 685, the courts have consistently upheld the following definition of urban decay:

*“[U]rban decay is defined as, among other characteristics, visible symptoms of physical deterioration that invite vandalism, loitering, and graffiti that is caused by a downward spiral of business closures and multiple long term vacancies. This physical deterioration to properties or structures is so prevalent, substantial, and lasting for a significant period of time that it impairs the proper utilization of the properties and structures, or the health, safety, and welfare of the surrounding community. The manifestations of urban decay include such visible conditions as plywood-boarded doors and windows, parked trucks and long term unauthorized use of the properties and parking lots, extensive gang and other graffiti and*

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<sup>126</sup> California Legislative Information, *Public Resources Code*, Division 13. Environmental Quality, 2100 – 21189, [https://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?lawCode=PRC&sectionNum=21000](https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=PRC&sectionNum=21000), accessed November 14, 2022.

<sup>127</sup> Thomson Reuters, Westlaw, *California Code of Regulations*, Title 14. Natural Resources, Division 6. Resources Agency, <https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I86C9BC205B4D11EC976B000D3A7C4BC3&originatio>  
[nContext=documenttoc&transitionType=Default&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=I86C9BC205B4D11EC976B000D3A7C4BC3&originatio), accessed November 14, 2022.

<sup>128</sup> American Legal Publishing, *San Francisco Administrative Code*, Chapter 31, [https://codelibrary.amlegal.com/codes/san\\_francisco/latest/sf\\_admin/0-0-0-15155](https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_admin/0-0-0-15155), accessed November 14, 2022.

*offensive words painted on buildings, dumping of refuse on site, overturned dumpsters, broken parking barriers, broken glass littering the site, dead trees and shrubbery together with weeds, lack of building maintenance, abandonment of multiple buildings, homeless encampments, and unsightly and dilapidated fencing.”*<sup>129</sup> These visible conditions are often characterized as “urban blight.”

To the extent that these visible conditions are considered an aesthetic impact, these aesthetic impacts are outside the scope of this CEQA review. Given that the project site is an infill site within a transit rich area and the project would be considered an employment center, the project qualifies as a transit-oriented project under CEQA section 21099. Pursuant to section 21099, for these projects aesthetic impacts are not to be considered significant impacts under CEQA.<sup>130</sup>

The definition of urban decay includes examples of visible conditions that are common in many urban environments, such as graffiti and homeless encampments. Other conditions, such as boarded-up windows and dumping of refuse may have become more common in recent years, especially in downtown areas that have been most affected by the COVID-19 pandemic. While these visible conditions may signal the potential existence of urban decay, the impact to human health, safety, and welfare would occur only over time, after a number of business closures in a “downward spiral” has led to the prevalence of long-term vacancies, to the degree that properties and structures are left derelict, if not completely abandoned.

The most extreme example of urban decay is a “ghost town,” an abandoned village, town or city which typically results from a complete failure of the major economic activity that supported it (e.g., an ore deposit exhausted by mining) or a natural or human-caused disaster. In these cases, insurmountable economic and/or environmental factors lead to permanent devastation and eventual abandonment.

## 4.B.2 Environmental Setting

City staff conducted a survey of commercial uses within one-quarter mile of the project site to identify existing commercial<sup>131</sup> vacancies and evidence of urban decay.<sup>132</sup> The survey identified 50 existing commercial spaces within a quarter-mile radius of the project site (not including the City Center property itself, which is discussed further below). As shown in **Table 4-1**, seven of these spaces are currently vacant.

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<sup>129</sup> Casetext, *Chico Advocates for a Responsible Econ. Vs. City of Chico*, 40 Cal.App.5th 839, 843 (Cal. Ct. App. 2019), <https://casetext.com/case/chico-advocates-for-a-responsible-econ-v-city-of-chico>, accessed November 14, 2022.

<sup>130</sup> San Francisco Planning Department, *Notice of Preparation of Environmental Impact Report*, Whole Foods at 2675 Geary Boulevard Project, p. 15, June 22, 2022. (This document is Appendix A to this EIR)

<sup>131</sup> For the purposes of this discussion “commercial” refers to non-residential space that are commonly leased for retail, restaurant or service uses. As such, “retail” is a subset of “commercial” in terms of land use.

<sup>132</sup> The survey included a radius map identifying commercial properties within a quarter-mile radius, a “desk check” of those properties using Google Streetview, and a walking tour of the radius area to validate the desk check data. Complete survey details are documented in a memo to file. San Francisco Planning Department, *Memorandum to File Re: Site Survey – Commercial Uses and Vacancies*, Whole Foods at 2675 Geary Boulevard (Case No. 2019-004110ENV-02), November 2022.

**Table 4-1 Existing Commercial Vacancies**

Name of Prior Business	Address	Permit Status or Occupancy Status
Bridgestone/Firestone/ America's Home for Car Service	2800 Geary Boulevard	Planning Commission approval has been granted for the demolition of the existing building and construction of 42 residential units over 850 square feet of ground floor commercial space.
Lucky Penny Diner	2670 Geary Boulevard	Building permit has been issued for demolition of the existing building and construction of 101 residential units over 1,756 square feet of ground floor commercial space.
Indian Market and Liquor	2601 Sutter Street	Building permit has been issued for demolition of the existing building and construction of three residential units.
Self-Service Car Wash	228 Collins Street	Demolition of existing structures approved by Planning Department; no new construction proposed.
Supercuts	2947 Geary Boulevard	Vacant – site visit revealed this site is actively seeking tenant (approximately 5,000 square feet)
Bank of America	2835 Geary Boulevard	Vacant – site visit revealed this site is actively seeking tenant (approximately 21,000 square feet)
Roots Wellness and Fitness	2600 Sutter Street	Vacant - site visit revealed that tenant improvements are underway

SOURCE: San Francisco Planning Department, *Memorandum to File Re: Site Survey – Commercial Uses and Vacancies*, Whole Foods at 2675 Geary Boulevard (Case No. 2019-004110ENV-02), November 2022.

Four of these sites (2670 and 2800 Geary Boulevard, 2601 Sutter Street, and 228 Collins Street) have issued building permits and/or entitlement approvals for on file. The approved plans for two sites (2670 and 2800 Geary Boulevard) would include ground-floor commercial spaces (1,756 and 850 square feet, respectively).

A demolition permit has been approved for 228 Collins Street and no new construction is proposed. A building permit for 2601 Sutter Street has been issued for a three-unit residential development; no commercial spaces is proposed. Therefore, aside from the demolition permit that has been approved for 228 Collins Street, these sites, while currently vacant, are not abandoned.

Based on observations made by City staff, the status of the remaining three commercial spaces that were unoccupied as of October 13, 2022, is as follows:

- 2600 Sutter Street – tenant improvements underway
- 2947 Geary Boulevard – actively seeking a new tenant
- 2835 Geary Boulevard – actively seeking a new tenant

In summary, it appears that one of the 50 existing commercial spaces within a quarter-mile radius of the project site, at 228 Collins Street, is currently vacant and there does not appear to be evidence of attempts for new tenancy, likely given that the existing structures that supported a self-service car wash are proposed for demolition and would not support any other type of commercial use. The three remaining vacant commercial spaces are either actively seeking a new tenant, or tenant improvements are underway. If the proposed projects at 2670 and 2800 Geary Boulevard are developed as planned, there would be two new

commercial spaces in the area. However, the approved plans for development of 2670 and 2800 Geary Boulevard include residential uses (101 and 42 units, respectively). As such, even if the ground floor commercial spaces were unoccupied, the inclusion of residential uses would help prohibit the site from becoming abandoned and derelict.

*City Center Shopping Center.* There are 15 leasable interior spaces within the City Center shopping center.<sup>133</sup> Of these, 10 are currently occupied and five are unoccupied. Of the unoccupied spaces two have lease holders and are awaiting Planning Commission approval of Conditional Use Authorizations:

- Suite E101: lease holder is F45
- Suite 300 (project site): lease holder is Whole Foods Market

For the three remaining unoccupied spaces, suites E104,<sup>134</sup> E106,<sup>135</sup> and 300A, either City Center management or the long-term leaseholder is actively seeking tenants.

During the October 13, 2022, site visit, Planning Department staff observed one example of blighted conditions within the City Center shopping center; the storefront windows at the project site were boarded up with plywood, presumably for security, since the commercial space is vacant. Very few examples of graffiti or other blighted conditions were observed within a 0.25-mile radius of the project site. Graffiti was observed on both occupied and unoccupied commercial storefronts in the area.<sup>136</sup>

### 4.B.3 Regulatory Framework

The City and County of San Francisco has approved legislation that seeks to limit commercial vacancies and encourage property owners to keep buildings in good repair to avoid urban blight and any eventual decline into urban decay. Such legislation includes, but is not limited to: the Vacancy Tax Ordinance, the Community Preservation and Blight Reduction Act, and the Graffiti Removal and Abatement Ordinance as discussed, below.

#### VACANCY TAX ORDINANCE

In March 2020, San Francisco passed Proposition D, the Vacancy Tax Ordinance, adding Article 29 to the San Francisco Business and Tax Regulations Code, which became effective April 17, 2020.<sup>137</sup> The ordinance imposes an annual tax on commercial property owners who have kept a retail space vacant for more than 182 days in a tax year.<sup>138</sup> The tax applies to all named neighborhood commercial districts (e.g., Geary Boulevard Neighborhood Commercial District) and is calculated based on commercial space's linear feet of frontage and doubles the second year the space is kept vacant.<sup>139</sup> Proceeds from the vacancy tax are directed

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<sup>133</sup> In addition to these leasable interior spaces, City Center is currently leasing a portion of parking lot D as a Tesla Charging Station site.

<sup>134</sup> Currently leased to Starbucks, seeking sub-tenant.

<sup>135</sup> Currently leased to Panera Breads, seeking sub-tenant.

<sup>136</sup> San Francisco Planning Department, *Memorandum to File Re: Site Survey – Commercial Uses and Vacancies*, Whole Foods at 2675 Geary Boulevard (Case No. 2019-004110ENV-02), November 2022.

<sup>137</sup> American Legal Publishing, *San Francisco Business and Tax Regulations Code*, article 29, Vacancy Tax Ordinance, [https://codelibrary.amlegal.com/codes/san\\_francisco/latest/sf\\_business/0-0-0-48959](https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_business/0-0-0-48959), accessed November 14, 2022.

<sup>138</sup> *Ibid*, section 2904(d).

<sup>139</sup> *Ibid*.

to the Small Business Assistance Fund to “... provide relief to those small businesses adversely affected by blight, crime, and other negative impacts caused by vacant storefronts ...”<sup>140</sup>

## COMMUNITY PRESERVATION AND BLIGHT REDUCTION ACT

The Community Preservation and Blight Reduction Act seeks to reduce the number of blighted properties in San Francisco neighborhoods through a combination of enforcement and rehabilitation activities, because “... [blighted] properties can attract illegal activities, cause general neighborhood instability, are a public nuisance, and can endanger the health and safety of its residents and neighbors.”<sup>141</sup> Blighted properties may be reported to Public Works so that Public Works may issue a blight citation to the property owner. If the property owner does not correct the complaint in a certain amount of time, Public Works may carry out any necessary exterior work and invoice the property owner.<sup>142</sup>

## GRAFFITI REMOVAL AND ABATEMENT ORDINANCE

Public Works Code article 23, the “Graffiti Removal and Abatement Ordinance”<sup>143,144</sup> makes it unlawful for any party to “deface, damage, or destroy Public Property or private property with graffiti.”<sup>145</sup> Article 23 also makes it “unlawful for the owner of any real property within the City bearing graffiti to allow the graffiti to remain on the property” and allows the Public Works Director to issue a notice of violation. If the property owner does not remove the graffiti or request a hearing within a specified time period, the Director may “initiate proceedings to enter upon the property and abate the graffiti” at a minimum charge of either \$500 or the actual cost to the City.<sup>146</sup>

### 4.B.4 Impacts and Mitigation Measures

#### SIGNIFICANCE CRITERIA

This section provides the impact analysis related to urban decay for the proposed project. As discussed above, currently, the topic of urban decay is not specifically identified in the CEQA statutes or guidelines, the Appendix G checklist, or the City’s initial study checklist. The following significance criterion related to urban decay would apply to the proposed project and is based on several recent court cases, as discussed above. The proposed project would have a significant effect related to urban decay if the proposed project would:

*cause or contribute to multiple business closures leading to long-term commercial vacancies that are prevalent, substantial, and long-lasting, leading to buildings and structures being abandoned and/or becoming derelict to such a degree that the health, safety, and welfare of the surrounding community would be negatively and substantially impacted.*

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<sup>140</sup> Ibid, section 2902(f).

<sup>141</sup> San Francisco Public Works, Community Preservation and Blight Reduction Act, <https://www.sfpublishworks.org/services/community-preservation-and-blight-reduction-act>, accessed November 14, 2022.

<sup>142</sup> Ibid.

<sup>143</sup> American Legal Publishing, *San Francisco Public Works Code*, Article 23, Section 2300, [https://codelibrary.amlegal.com/codes/san\\_francisco/latest/sf\\_publicworks/0-0-0-48143](https://codelibrary.amlegal.com/codes/san_francisco/latest/sf_publicworks/0-0-0-48143), accessed November 14, 2022.

<sup>144</sup> Ibid, section 2303.

<sup>145</sup> Ibid, section 2303(b).

<sup>146</sup> Ibid, section 2304(a).

## IMPACT EVALUATION

Based on the definition of urban decay, included above, an urban decay impact may occur if the proposed project triggers or substantially contributes to a series of events that lead to a downward spiral of business closures.

For example, a proposed project that creates enough competition with existing, nearby, similar businesses such that one or more businesses would close, resulting in commercial vacancies. The commercial vacancies would need to be both numerous and long-term and would lead to deferred maintenance, dereliction and/or eventual abandonment of these properties resulting in health, safety, and welfare impacts to the surrounding community. The following impact analysis considers the likelihood that this series of events would occur as a direct or indirect result of the proposed project.

The proposed project would renovate an existing commercial space for a new Whole Foods Market grocery store that would employ approximately 200 people. This commercial space was previously occupied by Best Buy and has been vacant since 2017. As a result, the direct and reasonably foreseeable effect of the proposed project would be to eliminate the existing long term (5-year) vacancy of level 3 of the City Center shopping center, and would bring new jobs, goods, and activity to the neighborhood. This would act as an economic stimulus to City Center and the surrounding area and could help to prevent future commercial vacancies. This, in turn, could help prevent a chain of events that could eventually lead to urban decay.

While the direct effect of the proposed project would be to eliminate an existing long-term commercial vacancy and bring jobs, goods, and activity to the area, there is some possibility that the proposed project could have indirect effects related to urban decay. For example, the approval of a Whole Foods Market at this location could create competition with existing nearby grocery stores, which could potentially lead to one or more new commercial vacancies. The potential for this to occur is further analyzed below.

As shown **Table 4-2** and **Figure 4-1**, there are seven existing grocery stores within 1.5 miles of the project site.<sup>147</sup>

**Table 4-2 Existing Grocery Stores**

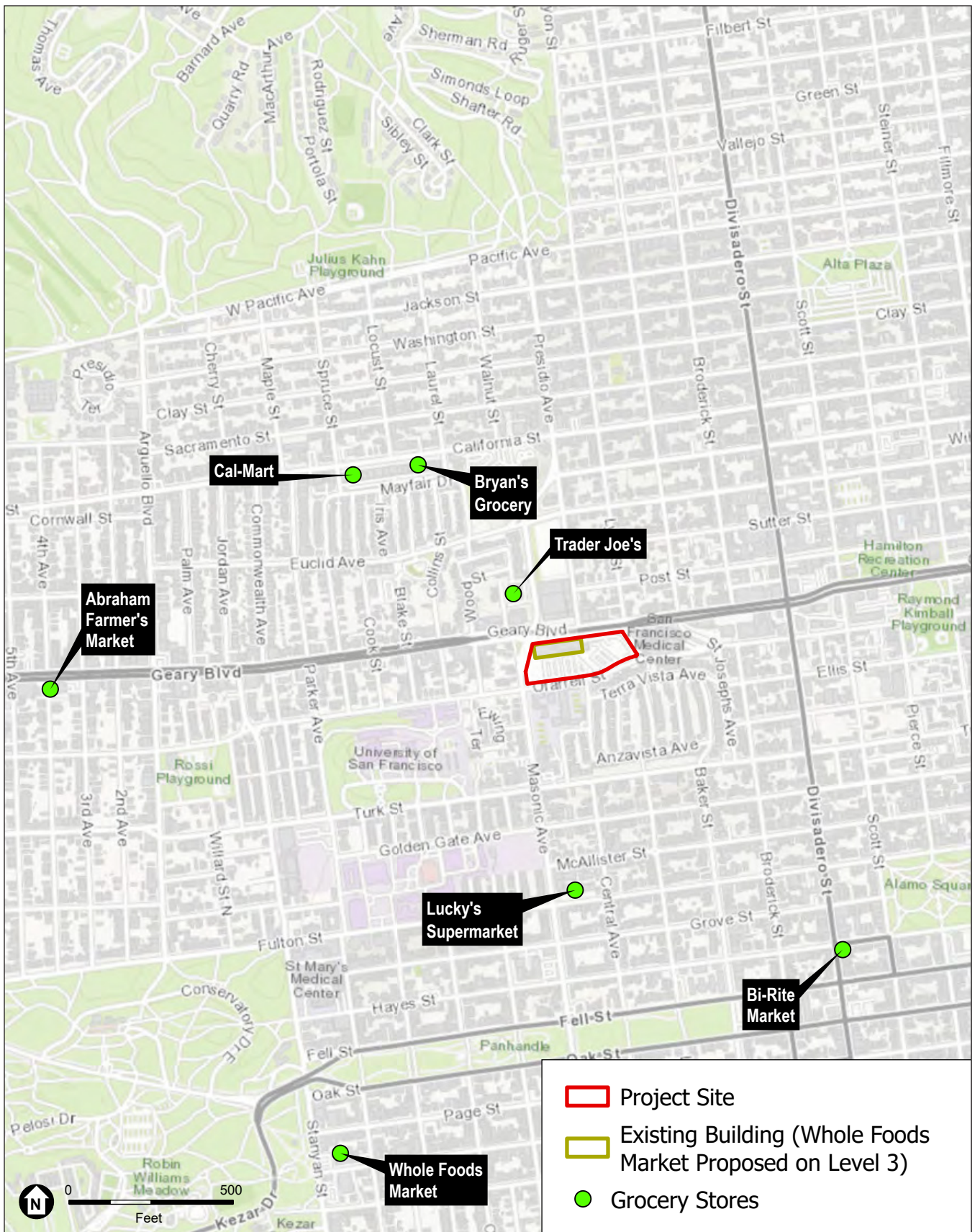
Business Name	Address	Location <sup>a</sup>
Trader Joe's	3 Masonic Avenue	0.3 miles northwest of project site
Lucky's Supermarket	1750 Fulton Street	0.6 miles south of project site
Bryan's Grocery	3445 California Street	0.7 miles northwest of project site
Bi-Rite Market	550 Divisadero Street	0.9 miles southeast of project site
Cal-Mart	3585 California Street	0.9 miles northwest of project site
Abraham Farmer's Market	3931 Geary Boulevard	1.1 miles west of project site
Whole Foods Market	690 Stanyan Street	1.4 miles southwest of project site

SOURCE: Google Maps, <https://www.google.com/maps/@37.7646207,-122.4127467,15z>, accessed September 22, 2022.

<sup>a</sup> Distances are approximate and are based on walking directions.

<sup>147</sup> This radius is based on the distance to the nearest existing Whole Foods Market.





SOURCE: San Francisco Planning Department 2022; Compiled by ESA in 2022

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 4-1**  
**GROCERY STORES WITHIN**  
**1.5 MILES OF THE PROJECT SITE**

In order for the proposed project to cause or lead to one or more commercial vacancies, a chain of events would need to occur. For example, the proposed project would need to directly compete with other commercial stores and that competition would have to be so intense that the commercial store would go out of business. There is no evidence to suggest that the proposed project would cause or contribute to the closure of existing grocery stores in the area given that other nearby stores offer different product lines at different price points, including the nearest full-service grocery store, Trader Joe's at 3 Masonic Avenue.

However, following this chain of events, conservatively assuming that the proposed project would result in competition with other nearby grocery stores and would indirectly contribute to one or more grocery stores going out of business, it is speculative to conclude that this would result in a long-term vacancy because it is in each owner's financial interest to find a new tenant to occupy a vacant commercial space. Specifically, owners are financially incentivized to find new tenants what will provide rental or lease income. Additionally, vacant commercial spaces in named neighborhood commercial districts, for example the nearby Geary Boulevard Neighborhood Commercial District, would be subject to the vacancy tax ordinance, discussed above in Section 4.5.3, Regulatory Framework, p. 4-5. The purpose of the Vacancy Tax Ordinance is, in part, to prevent commercial property owners from losing tenants or allowing commercial spaces to remain unoccupied. The Vacancy Tax Ordinance provides a financial incentive to commercial property owners to bring new tenants in, and not to allow unoccupied commercial spaces to become "Vacant."

Therefore, it is speculative to assume that even if the proposed project would result in competition with other nearby grocery stores, that competition would result in new commercial vacancies and that the vacancies would be long term. This is supported by the information presented in the environmental setting. As shown in the environmental setting, while there are seven current commercial vacancies within 0.25 miles of City Center (out of approximately 50 commercial spaces), permits have been approved for four of those sites, two sites are actively seeking new tenants, and another site is undergoing tenant improvements. Therefore, the addition of a few commercial vacancies within the vicinity of the project site would not necessarily lead to a "downward spiral" of long-term commercial vacancies that could lead to urban decay or blight.

However, in the event that the proposed project indirectly caused or contributed to the closure of multiple businesses and the commercial spaces did not acquire new tenants, despite the financial incentives offered by new tenancy and the financial disincentive of the Vacancy Tax Ordinance, multiple long-term commercial vacancies would not necessarily result in visible manifestations of urban decay such as plywood-boarded windows and doors, extensive graffiti, dumping of refuse on site, etc.<sup>148</sup>

In the unlikely event that multiple long-term commercial vacancies would occur, leading to deferred maintenance, dereliction and/or the eventual abandonment of these properties by the property owner, it is still unlikely that significant health, safety, and welfare impacts to the surrounding community would occur.

As described in Section 4.5.3, Regulatory Framework, p. 4-5 the Community Preservation and Blight Reduction Act and the Graffiti Removal and Abatement Ordinance both incentivize the maintenance of buildings to avoid blight, and to remove graffiti, if needed. Both pieces of legislation allow the City to carry out exterior work to private properties to remove graffiti and correct other conditions of blight if the property owner fails to respond to violation notices.

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<sup>148</sup> *Chico Advocates for a Responsible Econ. v. City of Chico*, 40 Cal.App.5th 839, 843 (Cal. Ct. App. 2019)

In summary, the proposed project would not directly result in new commercial vacancies that could cause or contribute to urban decay or blight conditions. In fact, the project would have the opposite direct effect by eliminating a long-term 5-year vacancy at City Center. Regarding indirect effects, a chain of events would need to occur in order for the proposed project to cause or lead to one or more commercial vacancies. However, assuming the proposed project creates competition with local retailers that leads to one or more commercial vacancies, local regulations such as the Vacant Tax Ordinance would reduce the chances that any vacancies would be long-term. Even if long-term commercial vacancies were to occur, City programs such as the Community Preservation and Blight Reduction Act would help reduce the risk of vacant commercial storefronts from falling into blighted conditions.

Therefore, the notion that the proposed project could result in “a downward spiral of business closures and long term vacancies” that are “so prevalent, substantial, and lasting for a significant period of time”<sup>149</sup> that they would ultimately lead to urban decay and blight is highly speculative and is not a reasonably foreseeable outcome of the proposed project, especially considering that the direct effect of the proposed project would be to eliminate a long-term commercial vacancy and bring jobs, goods and activity to the project site. Pursuant to CEQA Guidelines section 15064(d)(3), “an indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project. A change which is speculative or unlikely to occur is not reasonably foreseeable.” As such, impacts related to urban decay and blight would be **less than significant**, and no mitigation measures are required.

## 4.C Significant and Unavoidable Effects of the Proposed Project

In accordance with CEQA section 21067 and CEQA Guidelines sections 15126(b) and 15126.2(c), an EIR must identify significant and unavoidable environmental impacts that cannot be reduced to less-than-significant levels through regulatory compliance, design strategies, and/or incorporation of mitigation. For the proposed project, no environmental resource topics would have significant and unavoidable environmental effects as a result of project implementation. The findings of significant impacts are subject to final determination by the San Francisco Planning Commission as part of the certification process for this EIR.

## 4.D Significant Irreversible Changes

In accordance with CEQA section 21100(b)(2)(B) and CEQA Guidelines section 15126.2(d), an EIR must identify any significant irreversible environmental changes that could result from implementation of the proposed project. This may include current or future uses of nonrenewable resources, and secondary or growth-inducing impacts that commit future uses of nonrenewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. According to the CEQA Guidelines, irretrievable commitments of resources should be evaluated to assure that such current consumption is justified. In general, such irreversible commitments include resources such as energy consumed and construction materials used in the construction of a proposed project, as well as the energy and natural resources (notably water) that would be required to sustain a project and its inhabitants or occupants over the usable life of the project.

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<sup>149</sup> *Chico Advocates for a Responsible Econ. v. City of Chico*, 40 Cal.App.5th 839, 843 (Cal. Ct. App. 2019)

The initial study (Appendix A) found that the proposed project would have no impact with respect to land use and planning. Significant irreversible changes pertaining to long-term land use changes are not anticipated with project implementation and therefore are not discussed further in this analysis.

No significant environmental damage (e.g., accidental spills or the explosion of a hazardous material) is anticipated with implementation of the proposed project. Compliance with federal, state, and local regulations would ensure that construction and operational activities at the project site would not result in the release of hazardous materials into the environment and that associated impacts would be less than significant (refer to Appendix A, initial study Section E.6, Hazards and Hazardous Materials).

No irreversible changes, such as those that may occur from construction of a large-scale mining project, a hydroelectric dam project, or other industrial project, would result from development of the proposed project.

Consumption of nonrenewable resources includes increased energy consumption, conversion of agricultural lands, and lost access to mining reserves. As discussed in the initial study (see Appendix A), the project area does not contain any prime farmland, unique farmland, or farmland of statewide importance. Therefore, no existing agricultural lands would be converted to non-agricultural uses. In addition, the project area does not contain known mineral resources and does not serve as a mining reserve; therefore, the proposed project would not result in the loss of access to mining reserves.

The proposed project consists of interior renovations within the existing vacant retail space; replacement of existing heating, ventilation, and air conditioning (HVAC) equipment in the rooftop mechanical penthouse; an approximately 700-square-foot horizontal expansion of the rooftop mechanical penthouse to accommodate the new HVAC equipment; and new exterior signage. Construction of the proposed project would require the use of energy, including energy produced from nonrenewable resources, and energy would be consumed during the operational period of the proposed project. Construction would also require the commitment of relatively small amounts of construction materials, such as steel, aluminum, other metals, concrete, lumber, and water. However, the proposed project would not commit future generations to an irreversible commitment of energy, primarily in the form of fossil fuels for heating and cooling of buildings, for automobile and truck fuel, and for energy production because the proposed project would reuse an existing space. The reuse of existing vacant retail space would reduce the amount of materials sent to landfills compared to a project that would require demolition of an existing structure and new construction. Moreover, the proposed project would comply with the City's Recycling and Composting Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements, which promote the reuse of materials, conserving their embodied energy<sup>150</sup> and reducing the amount of nonrenewable resources required to produce new materials.

The renovations would meet current Title 24 building standards (for lighting, space heating, etc.) and would comply with San Francisco's Existing Buildings Ordinance. The Existing Buildings Ordinance requires buildings such as the City Center shopping center to undergo energy benchmarking, an energy audit every five years, and switch to 100 percent GHG free or 100 percent renewable electricity by December 31, 2024. Therefore, the proposed project would not include any new features that would result in a substantial increase in—or wasteful use of—energy.

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<sup>150</sup> *Embodied energy* is the total energy required for the extraction, processing, manufacture, and delivery of building materials to the building site.



With implementation of required conservation measures, the consumption of natural resources, including electricity and natural gas, would not commit future generations to a wasteful, inefficient, or unnecessary consumption of energy resources, as discussed in the initial study (refer to Appendix A, initial study Section E.7, Energy). Overall, the proposed project would be expected to use less energy and water over the lifetime of the proposed project than comparable grocery stores that would involve new building construction because the proposed project would reuse an existing vacant retail space promoting the reuse of materials and conserving their embodied energy and would replace existing fixtures and appliances with energy-efficient ones.

The proposed project would incrementally increase the demand for water in San Francisco but would not make a considerable contribution to a cumulative impact on water supply (refer to Appendix A, initial study Section D.5, Utilities and Services Systems). Increases in potable water use would be negligible, and the proposed project would be designed to incorporate water-conserving measures, such as low-flush toilets and urinals, as required by the San Francisco Green Building Ordinance. During construction activities, water may be used by construction employees, but would not involve the wasteful, inefficient, or unnecessary use of water resources.

The proposed project would not result in any significant impacts associated with an increase in greenhouse gas emissions or conflict with measures adopted for the purpose of reducing such emissions because the proposed project would comply with the requirements of the city's Greenhouse Gas Reduction Strategy (refer to Appendix A, initial study Section D.4, Greenhouse Gas Emissions). In addition, electricity and natural gas service is currently provided to the project site; the construction of new utility lines is not required. Therefore, the proposed project would not result in a significant impact associated with the consumption of nonrenewable resources.

## 4.E Areas of Known Controversy and Issues to Be Resolved

As described in Section 1.B, Project Background, p. 1-2, on March 16, 2021, the board adopted Motion No. M21-047 (see Appendix A, Attachment 2) reversing the determination by the planning department that the proposed project is exempt from CEQA under the common-sense exemption. The board directed the planning department to undertake additional analysis related to air quality, specifically stating the following:

*... MOVED, That the Board of Supervisors reverses the determination by the Planning Department that the Project is exempt from CEQA under the Common Sense Exemption; and, be it FURTHER MOVED, That the Board directs the Planning Department to further analyze the potential air quality impacts of the Project to sensitive receptors in the vicinity of the Project site.*  
...

Regarding all other environmental issues, the board found the common-sense exemption to be in conformance with the requirements of CEQA; specifically stating the following:

*... and, be it FURTHER MOVED, That as to all other issues, the Board finds the Common Sense Exemption conforms to the requirements of CEQA and is adequate, accurate, and objective, the record does not include substantial evidence to support a fair argument that the project may have a significant effect on the environment, and no further analysis is required.*

This EIR provides additional air quality analysis, as directed by the board. Publication of the notice of preparation of an EIR and initial study initiated a 30-day public review and comment period that began on June 22, 2022, and ended on July 22, 2022. During the review and comment period, six individuals submitted comments to the planning department. Five of the comments expressed support for approval of the proposed project. Comments in support of the project noted the added benefit to the local neighborhood from Whole Foods occupying this vacant commercial space in terms of either adding a new grocery option to the area, filling a vacant commercial space, and/or stimulating the local economy by adding pedestrian traffic and activity.

One commenter provided comments on the scope of the environmental review regarding air quality, noise and urban decay impacts. The commenter requested that the draft EIR include an analysis of the project's potential to result in store closures, urban decay, and blight. In response to this comment, Section 4.B, Urban Decay, p. 4-2, analyses the potential for the proposed project to result in urban decay. The analysis concludes that the proposed project would not directly create or contribute to an urban decay impact, and urban decay impacts would be less than significant.

As summarized under Section 1.E.2, Scoping Comments, p. 1-5, and as discussed above, the planning department has considered the comments made by the public in the preparation of this draft EIR.

#### **4.E.1 2020 CEQA Exemption Appeal**

As described in Section 1.B, Project Background, p. 1-2, an appeal of the CEQA exemption previously prepared for the proposed project was filed on September 18, 2020, by the Appellant. The Appellant submitted letters prepared by Environmental Permitting Specialists (EPS), which claimed the project was not exempt from CEQA under the common-sense exemption for the following reasons:

- Truck trip and freight loading volumes in the transportation analysis were underestimated.
- Truck emissions from diesel delivery vehicles on roadways adjacent to the site and from onsite truck maneuvering would expose nearby sensitive receptors to significant levels of toxic air contaminants (TACs).

As described in Chapter 1, Introduction, the board directed the planning department to undertake additional analysis related to the air quality impacts of the proposed project. With regard to all other environmental issues, the board found the common-sense exemption to be in conformance with the requirements of CEQA and was adequate, accurate, and objective.

This EIR presents air quality and health risk results based on substantial evidence supported by guidance from air quality agencies. In addition, the analysis presented in the initial study and this EIR is conservative for the following reasons:

- The transportation analysis collected data from four Whole Foods sites of similar use and scale and selected freight trip demand data from the 1765 California Street Whole Foods store, which provided the highest truck trip rate.<sup>151</sup> This represents conservative truck trip estimates being used for the purposes of air quality modeling;
- The air quality analysis assumes that each truck would idle twice for 5 minutes: one 5-minute period at the start of loading and another 5-minute period at the end of loading before the truck departs, for a

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<sup>151</sup> Kittelson & Associates, *Transportation Memorandum*, 2675 Geary Boulevard, Project # 22126.015, June 13, 2022.



total of 10 minutes of idling per truck trip, commensurate with state law.<sup>152</sup> This assumption results in a conservative (e.g., worst case) estimate of emissions because Whole Foods' standard operations and procedures do not allow trucks to idle while queuing for freight loading and unloading; and

- The air quality model assumed the proposed project would occupy the entire 54,285-square-foot vacant retail space on level 3 of the City Center shopping center, which was rounded up to 55,000 square feet in the air quality model. The project description was refined during preparation of the EIR such that the proposed project would occupy 49,825 square feet of the vacant retail space, while the remaining 4,460 square feet would be retained by City Center and would not be part of the project. As a result, the air quality modeling results are conservative because the results are based on a larger retail space.

While EPS has presented air quality analysis in their November 16, 2020, report, CEQA Guidelines section 15151 describes the standards for adequacy of an EIR and states “[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.” As discussed in Section A.3.5, Conclusions, and more fully in Appendix C.1, this EIR discloses the main points of disagreements, which include the modeling parameters used, and explains why the air quality analysis in Appendix C.4 and C.5 provides a more accurate analysis of the project’s air quality impacts. The refined health risk assessment in Appendix C.4 and C.5 and summarized in section 3.A, Air Quality, addresses all of the concerns raised by EPS during the appeal of the previous CEQA exemption. The refined health risk assessment presented in this EIR and Appendix C.4 and C.5 used modeling parameters recommended by the air district, OEHHA, U.S. EPA, and the planning department. Therefore, this EIR complies with section 15151 because it presents air quality and health risk results based on substantial evidence supported by guidance from air quality agencies, discloses results and responds to EPS’ concerns regarding the proposed project’s air quality impacts.

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<sup>152</sup> Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling, Title 13, California Code of Regulations (CCR), Section 2485, [https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about#:~:text=California%20Air%20Resources%20Board,-Main%20navigation&text=On%20July%2022%2C%202004%2C%20the.%2C%20and%20September%209%2C%202021](https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling/about#:~:text=California%20Air%20Resources%20Board,-Main%20navigation&text=On%20July%2022%2C%202004%2C%20the.%2C%20and%20September%209%2C%202021.), accessed December 8, 2022.

# CHAPTER 5

## ALTERNATIVES

### 5.A Introduction

This chapter presents the alternatives analysis, as required by CEQA, for the proposed project. The chapter includes a discussion of the CEQA requirements for an alternatives analysis and the methodology used for the selection of alternatives, with the intent of developing potentially feasible alternatives that avoid or substantially lessen the significant impacts identified for the proposed project while still meeting most of the basic project objectives.

The proposed project would not result in any significant and unavoidable impacts. However, as discussed in Section 3.B, Noise, the proposed project would result in a potentially significant noise impact which would be mitigated to a less-than-significant-level with implementation of Mitigation Measure M-NO-3, Mechanical Equipment Noise Control, which has been agreed to by the project sponsor. As to all other topics covered under CEQA, this EIR and initial study (Appendix A) present substantial evidence supporting a finding that the proposed project would result in a less than significant impact on the environment.

Pursuant to CEQA Guidelines section 15126.6(a), alternatives to a project selected for analysis in an EIR must substantially lessen or avoid any of the significant environmental impacts associated with the project. Therefore, alternatives have been developed to consider strategies that would further lessen the proposed project's less-than-significant-with-mitigation noise impact.

Alternatives to reduce the proposed project's less than significant air quality impacts were considered but rejected pursuant to the CEQA guidelines. See Section 5.E.7, Air Pollutant Emissions Reduction, p. 5-18, for further detail. This section identifies a reasonable range of alternatives that fulfill CEQA criteria and evaluates the alternatives for their comparative merits with respect to minimizing significant impacts that would occur with the proposed project, as designed.

After identifying the alternatives, the chapter evaluates the alternatives' impacts compared to existing environmental conditions and compared to the impacts of the proposed project. Based on this analysis, this chapter then identifies the environmentally superior alternative. Finally, it describes other alternative concepts that were considered but eliminated from detailed consideration and the reasons for their elimination.

#### 5.A.1 CEQA Requirements for Alternatives Analysis

CEQA Guidelines section 15126.6(a) states that an environmental impact report (EIR) must describe and evaluate a reasonable range of alternatives to the proposed project that would feasibly attain most of the project's basic objectives, but that would avoid or substantially lessen any identified significant adverse environmental effects of the project. An EIR is not required to consider every conceivable alternative to a proposed project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

CEQA, the CEQA Guidelines, and the case law on the subject have found that feasibility can be based on a range of factors and influences. CEQA Guidelines section 15364 defines “feasibility” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” CEQA Guidelines section 15126.6(f)(1) states that the factors that may be taken into account when addressing the feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (if the site is not already owned by the proponent).

The EIR must evaluate the comparative merits of the alternatives and include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. Specifically, the CEQA Guidelines set forth the following criteria for selecting and evaluating alternatives:

- “An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible.” (CEQA Guidelines section 15126.6(a))
- “[T]he discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.” (CEQA Guidelines section 15126.6(b))
- “The range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects.” (CEQA Guidelines section 15126.6(c))
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact.” (CEQA Guidelines section 15126.6(e)(1)) This analysis is required to include a discussion of the continuation of the existing conditions, as well as what could be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. (CEQA Guidelines section 15126.6(e)(2))
- “The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision-making.” (CEQA Guidelines section 15126.6(f))

## **5.A.2 Alternatives Selection**

This section describes the basis for determining the range of CEQA alternatives and identifies the specific alternatives that are analyzed in this EIR.

## PROJECT OBJECTIVES

As presented in Chapter 2, Project Description, the project sponsor identified eight objectives associated with the proposed project, which are reiterated below for use in the identification, selection, and evaluation of alternatives. As noted above, an EIR need only consider alternatives that would feasibly accomplish most of the project's basic objectives.

The project sponsor's objectives for the proposed project are:

- Re-use an existing vacant retail space to provide a new full-service grocery store.
- Avoid exterior modifications to the site or to the existing building except for necessary replacements of existing heating, ventilation, and air conditioning (HVAC) equipment in the building's mechanical penthouse.
- Provide convenient grocery shopping, with existing parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain.
- Provide the local community with access to a wider range of healthy foods and organic grocery and produce options.
- Comply with the city's general plan, including the priority policies and applicable policies and objectives for grocery stores.
- Minimize negative consequences to the surrounding neighborhoods.
- Provide employment opportunities for city residents.
- Provide opportunities for local suppliers of organic foods.

## SUMMARY OF SIGNIFICANT IMPACTS

As stated in the CEQA Guidelines section 15126.6(a), alternatives to a project selected for analysis in an EIR must substantially lessen or avoid any of the significant environmental impacts associated with the project. The proposed project would not result in any significant and unavoidable impacts. The proposed project's noise impacts primarily result from the rooftop mechanical equipment, in particular the cooling tower and outside air units, which are required for air circulation and heat removal associated with the project's refrigeration needs. The proposed project would result in potentially significant noise-related impacts at the outdoor playground receptors on level 4 of the City Center, as well as at the northern property plane. The noise impacts would exceed the land use compatibility standards for community noise for school classrooms, the standard applied at the daycare facility because the children would likely be using the outdoor playground multiple hours a day and the playground could also be used as an outdoor learning space. The proposed project would also exceed the applicable standard of the noise ordinance at the northern property plane. Implementation of Mitigation Measure M-NO-3 would require mechanical equipment noise control features such as a noise barrier around the cooling tower and repositioning of the acoustical louvers and lining a section of ducting, which would reduce the noise impacts to a less-than-significant level.

## ALTERNATIVES SCREENING AND SELECTION

In accordance with CEQA Guidelines section 15126.6(a), this EIR examines a reasonable range of alternatives to the proposed project or to the location of the project. An alternative selected for analysis must meet three

criteria: (1) the alternative would attain most of the project’s basic objectives, (2) the alternative would avoid or substantially lessen the significant environmental impacts of the proposed project, and (3) the alternative would be potentially feasible. An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative. Furthermore, an EIR need not consider every conceivable alternative but must consider a reasonable range of alternatives to foster informed decision-making and public participation.

### **STRATEGIES TO AVOID OR LESSEN IMPACTS**

As discussed under ‘CEQA Requirements for Alternatives Analysis’, above, the alternatives selection process for the proposed project was focused on identifying strategies that would further reduce the noise impacts of the proposed project. The noise impacts are due to the proximity of the proposed rooftop mechanical equipment to sensitive receptors in the outdoor playground and the northern property plane. Therefore, the primary strategies considered to avoid or lessen noise impacts included: increasing the distance between the cooling tower, the outdoor playground receptor, and the northern property plane; use of alternative quieter equipment; and/or eliminating the need for a cooling tower for the proposed project. As shown in **Table 5-1**, 10 potential alternatives to the proposed project were considered including relocation of the playground and relocation of the rooftop mechanical equipment, and alternative equipment options such as a larger cooling tower, air-cooled chiller, or no cooling tower. A memorandum evaluating alternative locations and equipment selection was prepared to inform the alternatives screening and selection process and is included in Appendix E.3 to this EIR.<sup>153</sup> Based on this information, this chapter ultimately analyzes a noise exposure reduction alternative that would locate a larger cooling tower on level 3.

**Table 5-1 Alternatives Screening**

Alternative	Alternative Location	Alternative Carried Forward for Analysis?
Cooling Tower Relocation	Level 4 – alternative location	No, see Section 5.E, Alternatives Considered but Rejected
Cooling Tower Relocation	Level 3	Yes (Alternative B, Noise Exposure Reduction Alternative – Equipment Relocation, Level 3)
Playground Relocation	Level 4 – west side of existing parking area	No, see Section 5.E, Alternatives Considered but Rejected
Larger Cooling Tower	Level 4 – same location as the proposed project	No, see Section 5.E, Alternatives Considered but Rejected
Larger Cooling Tower	Level 4 – alternative location	No, see Section 5.E, Alternatives Considered but Rejected
Larger Cooling Tower	Level 3	Yes (Alternative B, Noise Exposure Reduction Alternative – Equipment Relocation, Level 3)
Air Cooled Chiller	Level 4 – same location as the proposed project	No, see Section 5.E, Alternatives Considered but Rejected
Air Cooled Chiller	Level 4 – alternative location	No, see Section 5.E, Alternatives Considered but Rejected
Air Cooled Chiller	Level 3	No, see Section 5.E, Alternatives Considered but Rejected
No Cooling Tower	n/a	No, see Section 5.E, Alternatives Considered but Rejected

<sup>153</sup> Salter, 2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations, Salter Project 21-0548 (September 16, 2022).

## 5.B Summary of Alternatives

Based on the alternatives screening process described above, the following three alternatives were selected for detailed analysis in this EIR:

- Alternative A1: No Project – Vacant Retail Space
- Alternative A2: No Project – Future Retail Tenant – No Cold Storage
- Alternative B: Noise Exposure Reduction Alternative, Taller Cooling Tower on Level 3

**Table 5-2** provides a comparison of the alternative features, an impact summary related to the environmental topics analyzed in this EIR (noise, air quality, and urban decay) and identifies whether the alternatives would fulfill the project objectives. Descriptions of each alternative are presented below, including the assumptions used in analyzing their environmental impacts.

**Table 5-2 Comparison of Proposed Project and Alternatives**

Project Characteristics	Proposed Project	Alternative A: No Project		Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3
		Alternative A1: No Project – Vacant Retail Space	Alternative A2: No Project – Future Retail Tenant – No Cold Storage	
DESCRIPTION				
Interior area (square feet)	49,825	49,825	49,825	49,825
Land use	Grocery Store	Vacant	Retail – no cold storage	Grocery Store
Rooftop mechanical penthouse (square feet)	1,630	930	930–1,630 <sup>a</sup>	930
Loading operations	5 a.m.–3 p.m.	None	5 a.m.–3 p.m.	5 a.m.–3 p.m.
Off-road construction equipment	Average crane	None	Average crane	Average crane
Cooling tower location	Level 4	None	None	Level 3
ABILITY TO MEET PROJECT SPONSOR’S OBJECTIVES				
Re-use an existing vacant retail space to provide a new full-service grocery store.	Yes	No	No	Yes
Avoid exterior modifications to the site or to the existing building except for necessary replacements of existing heating, ventilation, and air conditioning (HVAC) equipment in the building’s mechanical penthouse.	Yes	Yes	Yes	No
Provide convenient grocery shopping, with existing parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain.	Yes	No	No	Yes



**Chapter 5. Alternatives**  
**5.B. Summary of Alternatives**

Project Characteristics	Proposed Project	Alternative A: No Project		Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3
		Alternative A1: No Project – Vacant Retail Space	Alternative A2: No Project – Future Retail Tenant – No Cold Storage	
Provide the local community with access to a wider range of healthy foods and organic grocery and produce options.	Yes	No	No	Yes
Comply with the City’s General Plan, including the priority policies and applicable policies and objectives for grocery stores.	Yes	No	No	Yes
Minimize negative consequences to the surrounding neighborhoods.	Yes	Unknown	Yes	Yes
Provide employment opportunities for City residents.	Yes	No	Yes	Yes
Provide opportunities for local suppliers of organic foods.	Yes	No	No	Yes
<b>COMPARISON OF ENVIRONMENTAL IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES</b>				
<b>NOISE</b>				
Impact NO-3: The proposed project would result in a substantial permanent increase in ambient noise levels in the project vicinity in excess of applicable standards.	LTSM	< NI	< LTS	<LTSM
Impact C-NO-1: The proposed project, in combination with cumulative projects, would not result in significant cumulative noise or vibration impacts.	LTS	<NI	<LTS	<LTS
<b>AIR QUALITY</b>				
Impact AQ-1: The proposed project would not conflict with or obstruct implementation of the Clean Air Plan.	LTS	<NI	<LTS	=LTS
Impact AQ-2: Construction and operation of the proposed project would not result in a cumulatively considerable net increase of non-attainment criteria air pollutants within the air basin.	LTS	<NI	<LTS	=LTS
Impact AQ-3: Construction and operation of the proposed project would not produce emissions of fine particulate matter (PM <sub>2.5</sub> ) and toxic air contaminants that would result in exposure of sensitive receptors to substantial air pollutant concentrations.	LTS	<NI	<LTS	=LTS
Impact AQ-4: Construction and operation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	<NI	<LTS	=LTS

Project Characteristics	Proposed Project	Alternative A: No Project		Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3
		Alternative A1: No Project – Vacant Retail Space	Alternative A2: No Project – Future Retail Tenant – No Cold Storage	
Impact C-AQ-1: Construction and operation of the proposed project, in combination with cumulative projects would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM <sub>2.5</sub> ) and toxic air contaminants, but the proposed project’s health risk contribution would be less than cumulatively considerable.	LTS	<NI	<LTS	=LTS
Impact C-AQ-2: Construction and operation of the proposed project, in combination with cumulative projects, would not combine with other sources of odors that would adversely affect a substantial number of people.	LTS	<NI	<LTS	=LTS
Urban Decay: The proposed project would not cause or contribute to multiple business closures leading to long-term commercial vacancies that are prevalent, substantial, and long-lasting, leading to buildings and structures being abandoned and/or becoming derelict to such a degree that the health, safety, and welfare of the surrounding community would be negatively and substantially impacted.	LTS	<LTS	=LTS	=LTS

NOTES:

- <sup>a</sup> It is assumed a future retail tenant *may* require upgrades to the HVAC system depending on the size and type of the use(s) but would not require the addition of the cooling tower to support refrigeration needs.

IMPACT CODES:

NI = No impact      LTS = Less-than-significant or negligible impact; no mitigation required      LTSM = Less-than-significant impact; mitigation required      = (equal to proposed project impact)      < (less than proposed project impact)

## 5.C Alternatives Analysis

### 5.C.1 Alternative A1: No Project – Vacant Retail Space

As required by CEQA Guidelines section 15126.6(e), a no project alternative is evaluated in this draft EIR to allow decision-makers to compare the environmental effects of approving the proposed project with the effects of not approving the project. CEQA Guidelines section 15126.6(e)(2) requires that the no project alternative analysis “discuss the existing conditions ... as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and policies and consistent with the available infrastructure and community services.” This no project alternative assumes no development would occur and the project site would remain a vacant retail space as it is under existing conditions.

#### DESCRIPTION

Alternative A1 (No Project – Vacant Retail Space) assumes that the proposed project and related improvements would not be constructed and implemented at the project site. The project site would remain

as is; no modifications or renovations would be undertaken, no tenant would move in, and the project site would remain vacant. This would be a continuation of a long-term vacancy, as the project site has been vacant since 2017.

## ALTERNATIVE A1 IMPACT ANALYSIS

### NOISE

Under Alternative A1, the project site would remain in its existing condition, and no new noise-generating rooftop mechanical equipment would be constructed. Because no new noise-generating mechanical equipment would be constructed, Alternative A1 would avoid the less-than-significant-with-mitigation noise impact that would result from implementation of the proposed project. Mitigation Measure M-NO-3 would not be applicable to Alternative A1. Alternative A1 would not result in any project-level or cumulative impacts related to noise. Consequently, Alternative A1 would have **no impact** on noise.

### AIR QUALITY

Under Alternative A1, the project site would remain in its existing condition, and there would be no interior renovations or replacement of existing mechanical equipment. Additionally, the site would remain vacant and would not generate new employment or grocery shopping opportunities that generate passenger vehicle trips and truck trips, and associated air pollutant emissions. Because no construction would occur and no operational sources of emissions would occur under Alternative A1, it would not have any project-level or cumulative impacts on air quality. Consequently, Alternative A1 would have **no impact** on air quality.

### URBAN DECAY

The direct effect of Alternative A1 would be that the project site would remain vacant, as it has been since 2017. Alternative A1 would not bring jobs, goods or activity to the project site that could act as an economic stimulus to City Center and the surrounding area and could help to prevent future commercial vacancies that could help prevent a chain of events that could eventually lead to urban decay.

Since there would be no new commercial tenant, Alternative A1 would not have the potential to create competition with existing businesses, but it would perpetuate the existing condition of a long-term vacancy and would have a greater potential to contribute to “a downward spiral of business closures and long-term vacancies”. However, as discussed in Section 4.B.4, Urban Decay, even if the project site were to remain a long-term commercial vacancy that contributed to business closures and additional long-term vacancies, City programs such as the Community Preservation and Blight Reduction Act would help reduce the risk of vacant commercial storefronts from falling into blighted conditions. As such, project-level and cumulative impacts related to urban decay and blight would be **less than significant**.

### OTHER TOPICS

Under Alternative A1, the project site would remain in its existing condition, and there would be no interior renovations or replacement of existing mechanical equipment. Therefore, under Alternative A1 there would be no impact related to land use and planning, population and housing, historic resources, archeological resources and human remains, tribal cultural resources, transportation and circulation, greenhouse gas emissions, recreation, wind, shadow, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, hazards and hazardous materials, and energy resources.

Under Alternative 1A, impacts to all environmental topics listed above would be less than those anticipated with implementation of the proposed project because no construction, or changes to operations would occur. Under Alternative 1A, the following environmental topics are not applicable, similar to the proposed project: mineral resources, wildfire, agriculture, and forestry resources.

## **ABILITY TO MEET PROJECT OBJECTIVES**

Because the project would not be implemented, Alternative A1 would not achieve most of the project sponsor's objectives for the proposed project except to avoid exterior modifications to the site or to the existing building except for necessary replacements of existing HVAC equipment. Objectives to develop and re-use an existing vacant retail space to provide a new full-service grocery store; provide convenient grocery shopping, with existing shared parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain; provide the local community with access to a wider range of healthy foods and organic grocery and produce options; and provide opportunities for local suppliers of organic foods would not be achieved.

### **5.C.2 Alternative A2: No Project – Future Retail Tenant – No Cold Storage**

As discussed above, according to the CEQA Guidelines, as part of the No Project Alternative, the alternatives analysis is required to include a discussion of the continuation of the existing conditions (i.e., no development at all), as well as what could be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines section 15126.6(e)(2)). If the proposed project were not approved, it is reasonable to assume that a future retail tenant could occupy the vacant 49,825-square-foot space.

## **DESCRIPTION**

Under Alternative A2 (No Project – Future Retail Tenant – No Cold Storage), the future retail tenant would be selling dry goods and would not require cold storage or the associated cooling tower. Examples of dry goods include clothing, books, electronics, furniture, sporting goods, art supplies, etc.

For the purposes of the impact analysis, it is assumed that the future retail tenant operations would be comparable to the proposed project in terms of truck trips and operations. However, trucks delivering to the site would not require refrigeration and would not have a TRU. Further, it is assumed that some upgrades to the HVAC equipment may be required to support the new use and to meet the latest Title 24 and Green Building Code regulations. However, it is also assumed any new HVAC equipment would meet the requirements of the Noise Ordinance and would generate noise levels similar to the noise levels from the existing equipment.

## **ALTERNATIVE A2 IMPACT ANALYSIS**

### **NOISE**

Under Alternative A2, the existing approximately 49,825-square-foot, vacant retail space would be renovated with a new retail use that would involve only dry goods storage and sales. This alternative would consist of interior renovations within the existing vacant retail space and would require replacement of the HVAC equipment in the rooftop mechanical penthouse but would likely not require the approximately 700-square-foot horizontal expansion of the rooftop mechanical penthouse to accommodate the new cooling tower and

exhaust fans. Similar to the proposed project, new exterior signage would likely also be installed under this alternative. Because this alternative would still require truck deliveries, traffic noise would be similar to the proposed project and this analysis focuses on mechanical equipment noise impacts only. Because new mechanical equipment is assumed to generate noise levels similar to the existing equipment and is assumed to meet the requirements of the noise ordinance, Alternative A2 would avoid the less-than-significant-with-mitigation noise impact that would result from implementation of the proposed project. Alternative A2 would not result in any significant project-level or cumulative impacts related to noise. As such, Mitigation Measure M-NO-3 would not be applicable to Alternative A2. Consequently, Alternative A2 would have **less-than-significant** project-level and cumulative impacts related to noise.

## AIR QUALITY

Operations under Alternative A2 would be similar in terms of truck trips. However, under this alternative, no refrigerated trucks would be required to deliver goods to the retail space. Therefore, there would be a reduction in criteria pollutant emissions, lifetime excess cancer risk, and annual average PM<sub>2.5</sub> concentrations associated with the diesel engines on the TRUs. When compared to the proposed project, Alternative A2 would result in the following reductions of criteria pollutant emissions: 0.54 tons per year less of ROG, 1.84 tons per year less of NO<sub>x</sub>, 0.16 tons per year less of PM<sub>10</sub>, and 0.17 tons per year less of PM<sub>2.5</sub>. In addition, compared to the proposed project, lifetime excess cancer risk would be reduced by 1.0 per one million at the residential MEI, 0.83 per one million at the daycare MEI, and 2.9 per million at the worker MEI. Compared to the proposed project, average annual PM<sub>2.5</sub> concentrations would be reduced by 0.002 µg/m<sup>3</sup> at the residential and daycare MEIs and 0.082 µg/m<sup>3</sup> at the worker MEI.<sup>154</sup> Consequently, similar to the proposed project, Alternative A2 would have a **less-than-significant** project-level and cumulative impact on air quality.

## URBAN DECAY

Under Alternative A2, the existing long-term commercial vacancy at the project site would be filled by a new commercial business that would not require cold storage. As such, the new commercial tenant would be selling dry goods and would not be a grocery store. The direct effect of Alternative A2 would be to eliminate a long-term commercial vacancy and bring jobs, goods and activity to the project site. While it is possible that a future commercial tenant could create competition with existing nearby businesses, for the same reasons as discussed for the proposed project, it is unlikely that Alternative A2 could result in “a downward spiral of business closures and long-term vacancies” that are “so prevalent, substantial, and lasting for a significant period of time”<sup>155</sup> that they would ultimately lead to urban decay and blight. Given that this is not a reasonably foreseeable outcome under Alternative A2, project-level and cumulative impacts related to urban decay and blight would be **less than significant**.

## OTHER TOPICS

Under Alternative A2, the existing approximately 49,825-square-foot, vacant retail space would be renovated with a new retail use that would involve dry good storage and sales only.

Operations under Alternative A2 would be similar in terms of truck trips. Therefore, impacts under Alternative A2 related to land use and planning, population and housing, historic resources, archeological resources and human remains, tribal cultural resources, transportation and circulation, recreation, wind,

<sup>154</sup> Ramboll, 2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results for Worker Receptors, December 2022. This document is included with this EIR as Appendix C.4.

<sup>155</sup> *Chico Advocates for a Responsible Econ. v. City of Chico*, 40 Cal.App.5th 839, 843 (Cal. Ct. App. 2019).

shadow, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, and hazards and hazardous materials would be similar to the proposed project. Since this alternative would not include refrigerated goods, greenhouse gas emissions, and energy impacts of this alternative would be less than the proposed project because trucks carrying refrigerated goods in transportation refrigeration units (TRUs) would not be required. Finally, there would be no wind or shadow impacts under this alternative, similar to the proposed project.

As with the proposed project, Alternative A2 would have no impacts on mineral resources because none are present within the project site, and the topics of wildfire, agriculture, and forestry resources would not be applicable to Alternative A2.

## ABILITY TO MEET PROJECT OBJECTIVES

Because the alternative would not construct a grocery store, Alternative A2 would not achieve most of the project sponsor's objectives for the proposed project except to avoid exterior modifications to the site or to the existing building except for necessary replacements of existing HVAC equipment and provide employment opportunities for City residents. Objectives to develop and re-use an existing vacant retail space to provide a new full-service grocery store; provide convenient grocery shopping, with existing parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain; provide the local community with access to a wider range of healthy foods and organic grocery and produce options; and provide opportunities for local suppliers of organic foods would not be achieved.

### 5.C.3 Alternative B: Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3

#### DESCRIPTION

Alternative B (Noise Exposure Reduction – Taller Cooling Tower on Level 3), shown in **Figure 5-1**, would include a taller cooling tower on level 3 of the City Center shopping center. The cooling tower under Alternative B would have the same footprint as the proposed project but would have different specifications. Based on the manufacturer's technical sheet, the cooling tower's noise rating would be 8 dB lower than the proposed project's cooling tower.<sup>156</sup> Under this alternative, the cooling tower would be located to the right side of the proposed entrance of the store, would be approximately 28 feet tall (5 feet taller than under the proposed project),<sup>157</sup> and up to two ADA-accessible parking spaces would need to be relocated in the level 3 parking lot (lot C) to make space for the cooling tower equipment.

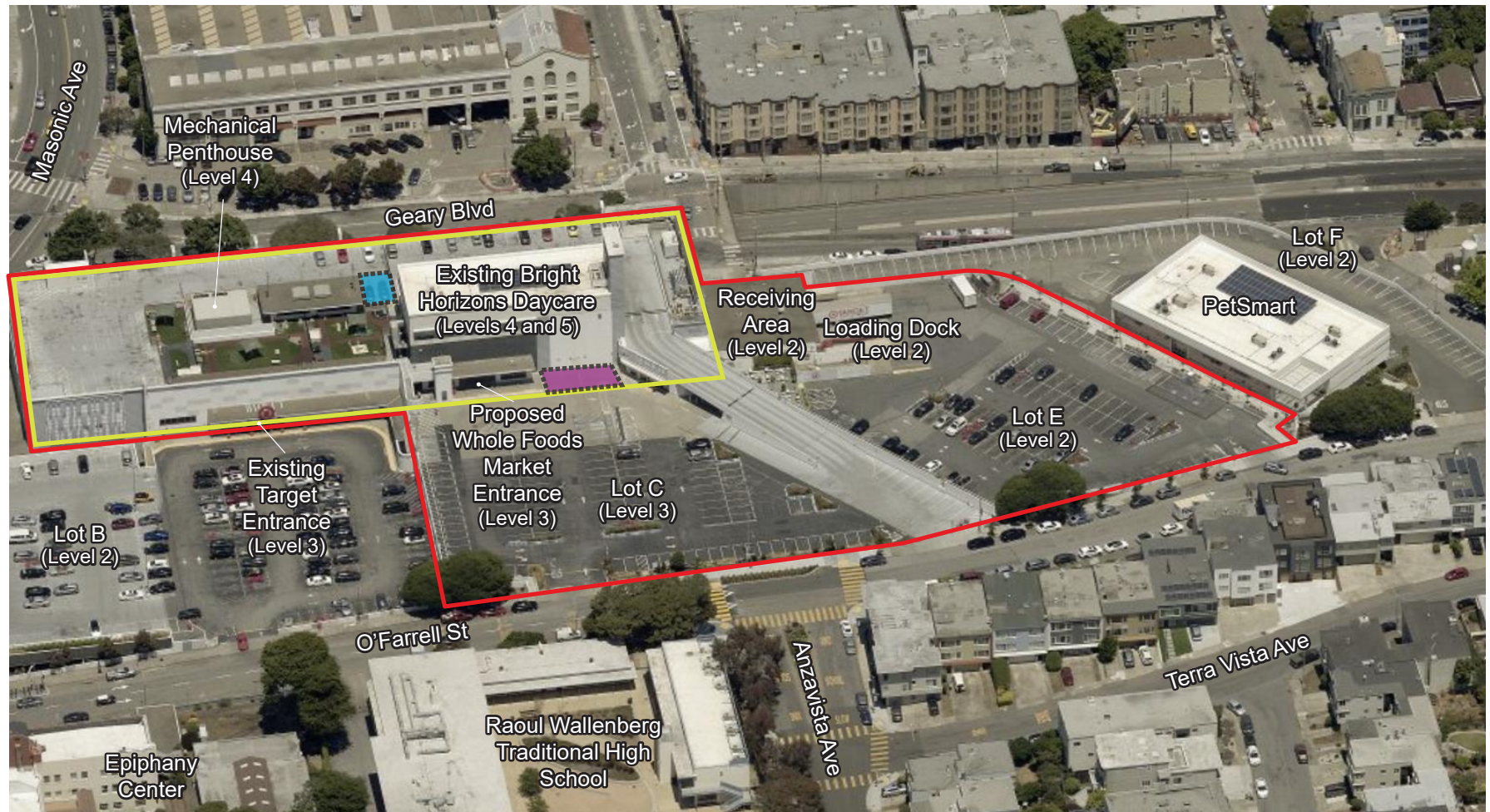
Relocating the cooling tower to level 3 would increase the distance between the cooling tower, the outdoor playground receptor, and the north property plane. In addition, the City Center building would provide shielding between the cooling tower and the north property plane, which would reduce noise levels at the northern property plane.

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<sup>156</sup> Evapco, *Closed Circuit Cooler Technical Data Sheet*, (1) ESW4 12-44L12-SP, July 20, 222.

<sup>157</sup> Salter, *2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations*, Salter Project 21-0548, September 16, 2022.





\*North arrow and scale bar are approximate

0 100  
Feet

Proposed Project Cooling Tower Location

Alternative B Potential Cooling Tower Location

Project Site

Existing Building (Whole Foods Market Proposed on Level 3)

SOURCE: Eagleview 2020

Whole Foods at 2675 Geary Boulevard Project

**FIGURE 5-1**

**ALTERNATIVE B, NOISE EXPOSURE REDUCTION ALTERNATIVE - TALLER COOLING TOWER ON LEVEL 3**

All other aspects of the proposed project would be similar under Alternative B. Like the proposed project, the existing vacant retail space would be renovated with an existing approximately 49,825 -square-foot, Whole Foods Market grocery store. Alternative B would include the same improvements to the receiving area and adjacent loading dock, and no changes to vehicle parking, bicycle parking, loading, driveway access, or onsite circulation would occur. Other than the cooling tower, the same outside air unit and other mechanical equipment would be constructed within the rooftop mechanical penthouse. However, the approximately 700-square-foot horizontal expansion of the rooftop mechanical penthouse would not be required. Lastly, grocery store operations would be identical to the proposed project under Alternative B.

## ALTERNATIVE B IMPACT ANALYSIS

### NOISE

Under Alternative B, the cooling tower would be approximately 5 feet taller than the proposed project's cooling tower and would be relocated to an area to the right of the store entrance. As described above, the cooling tower under Alternative B would have a noise rating that is 8 dB lower than the proposed project's cooling tower.<sup>158</sup> The only difference between Alternative B and the proposed project is the cooling tower specification and its location; therefore, traffic noise would be identical to the proposed project and this analysis focuses on mechanical equipment noise impacts only.

Alternative B was evaluated for compliance with the noise ordinance. This analysis is included in Appendix E.3 and is summarized below.

As shown in **Table 5-3**, the alternative equipment and location would result in lower noise levels at the west and south property planes, and at the outdoor playground receptor; therefore, Alternative B would meet the noise ordinance section 2909(b) commercial and industrial property noise limits at the west and south property planes, and general plan land use compatibility standard for school classrooms of 62.5 dBA (the noise level standard applied to the outdoor playground). The noise analysis for the alternative equipment and location determined that noise levels would be 57 dBA at the north property plane, which would exceed the 55 dBA noise limit. The noise level at the north property plane under this alternative would be from the outside air units, which would be installed in the mechanical penthouse, similar to the proposed project. Therefore, implementation of the OSA noise reduction features specified in Mitigation Measure M-NO-3 would still apply to Alternative B. However, the noise barriers and louvers specified in Mitigation Measure M-NO-3 would not apply to Alternative B. Overall, this alternative would result in lower noise levels at two of the three property planes and at the outdoor playground receptor and therefore would have reduced noise impacts compared to the proposed project. Consequently, Alternative A2 would have a **less-than-significant-with-mitigation** impact related to noise. For the same reasons as the proposed project, cumulative noise impacts would be **less than significant**.

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<sup>158</sup> Evapco, *Closed Circuit Cooler Technical Data Sheet*, (1) ESW4 12-44L12-SP, July 20, 222.

**Table 5-3 Alternative B, Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3 Results, dBA**

Location	Significance Threshold Noise Limit (dBA)	Proposed Project Equipment Noise (dBA) with Mitigation Measure M-NO-3	Alternative B, Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3 Equipment Noise (dBA)	Alternative B, Noise Exposure Reduction Alternative – Taller Cooling Tower on Level 3 Equipment Noise (dBA) with Mitigation Measure M-NO-3
<b>NOISE ORDINANCE SECTION 2909(D)</b>				
North Property Plane	55 <sup>a</sup>	55	57	55
West Property Plane	53 <sup>a</sup>	48	37	37
South Property Plane	54 <sup>a</sup>	52	49	49
<b>GENERAL PLAN LAND USE COMPATIBILITY</b>				
Outdoor Playground Receptor	62.5 <sup>b</sup>	62	57	57

SOURCE: Salter, 2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations, Salter Project 21-0548 (September 16, 2022)

<sup>a</sup> Based on 8 dB above ambient levels as defined in noise ordinance section 2909(b).

<sup>b</sup> General plan land use compatibility standard for “school classrooms, libraries, churches, hospitals, nursing homes, etc.” of 62.5 dBA.

## AIR QUALITY

The only difference between Alternative B and the proposed project is the cooling tower specification and its location. A taller cooling tower on level 3 of the City Center shopping center would have the same air quality impacts as the proposed project. Consequently, similar to the proposed project, Alternative B would have a **less-than-significant** project-level and cumulative impact on air quality.

## URBAN DECAY

The only difference between Alternative B and the proposed project is the cooling tower specification and its location. Under Alternative B, the existing vacant commercial space would be occupied by a Whole Foods Market. The direct effect of Alternative B would be to eliminate a long-term commercial vacancy and bring jobs, goods and activity to the project site. However, like the proposed project, Alternative B could create competition with other nearby grocery stores but would not likely create or contribute to “a downward spiral of business closures and long-term vacancies” that are “so prevalent, substantial, and lasting for a significant period of time”<sup>159</sup> that they would ultimately lead to urban decay and blight. Given that this is not a reasonably foreseeable outcome under Alternative A2, project-level and cumulative impacts related to urban decay and blight would be **less than significant**.

## OTHER TOPICS

The only difference between Alternative B and the proposed project is the cooling tower specification and its location. All other aspects of Alternative B would be similar to the proposed project, including rooftop

<sup>159</sup> *Chico Advocates for a Responsible Econ. v. City of Chico*, 40 Cal.App.5th 839, 843 (Cal. Ct. App. 2019)

mechanical penthouse changes for mechanical equipment other than the cooling tower, except this alternative would not require the 700-square-foot expansion of the rooftop mechanical penthouse.

The cooling tower under Alternative B would be adjacent to the existing building on level 3, and, at approximately 28 feet tall, would not extend above the existing exterior wall. On level 4, the 26-foot-tall noise barrier would not be constructed under this alternative. The mechanical penthouse wall would be 10 feet tall as under existing conditions and similar to the proposed project. Therefore, wind and shadow impacts from this alternative would be the same as the proposed project (no impact).

Operations under Alternative B would be the same as the proposed project in terms of truck trips, operations, and upgrades to the HVAC equipment. Therefore, impacts under Alternative B related to land use and planning, population and housing, historic resources, archeological resources and human remains, tribal cultural resources, transportation and circulation, recreation, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, and hazards and hazardous materials would be the same as those anticipated with implementation of the proposed project.

The cooling tower under this alternative would have a 25-horsepower motor, while the proposed project's cooling tower would have a 30-horsepower motor. A lower horsepower motor would result in less electricity demand. Therefore, Alternative B would use slightly less energy than the proposed project;<sup>160</sup> and the greenhouse gas emissions and energy impacts of this alternative would be less than the proposed project.

As with the proposed project, Alternative B would have no impacts on mineral resources because none are present within the project site, and the topics of wildfire, agriculture, and forestry resources would not be applicable to Alternative B.

## ABILITY TO MEET PROJECT OBJECTIVES

Alternative B would meet most of the project sponsor's objectives for the proposed project. Alternative B would partially meet the following objective because the alternative cooling tower would be constructed outside of the building's mechanical penthouse: avoid exterior modifications to the site or to the existing building except for necessary replacements of existing HVAC equipment in the building's mechanical penthouse.

## 5.D Environmentally Superior Alternative

CEQA Guidelines section 15126(c) requires an EIR to identify the alternative to the proposed project that would have the least adverse environmental impacts (i.e., the "environmentally superior alternative"). Alternative A1 (No Project – Vacant Retail Space) is considered the environmentally superior alternative because none of the less-than-significant impacts that would occur with proposed project implementation would occur with implementation of Alternative A1. However, Alternative A1 does not meet any of the project sponsors' objectives.

If it is found that the environmentally superior alternative is the No Project Alternative, CEQA requires another alternative to be identified as the environmentally superior alternative. Because Alternative B would

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<sup>160</sup> Roger Dean, DC Engineering, e-mail correspondence with Rachel Schuett, San Francisco Planning Department, July 28, 2022.



reduce noise impacts compared to the proposed project, Alternative B is considered the environmentally superior alternative.

Table 5-2, p. 5-5, provides a comparison of the impact of the proposed project and each alternative.

## **5.E Alternatives Considered but Rejected**

CEQA Guidelines section 15126(c) requires an EIR to identify alternatives that were considered by the lead agency throughout the planning process but were ultimately rejected. The following alternatives were considered but were ultimately rejected for the reasons described below.

### **5.E.1 Cooling Tower Relocation on Level 4**

An alternative that would relocate the cooling tower to the far west side of the level 4 parking lot (i.e., to the west of the mechanical penthouse) was considered to increase the distance between the noise source and the receptors. Although it is technically feasible to relocate the cooling tower to the west side of level 4 from a mechanical, electrical, and plumbing perspective, it would require more structural work than under the proposed project. This alternative was rejected because it would not substantially increase the distance or line-of-sight between the equipment and the outdoor playground receptor. In addition, it would place the cooling tower closer to the northern property plane and therefore would not reduce noise impacts at the northern property plane. Therefore, this alternative was rejected from further consideration.

### **5.E.2 Playground Relocation**

An alternative to relocate the existing daycare playground on level 4 of the City Center was considered. This alternative would relocate the daycare playground to the far west side of the level 4 parking lot (i.e., to the west of the mechanical penthouse enclosure) and create a pathway from the existing entrance to the relocated playground. This alternative would increase the distance between the outdoor playground receptors and the cooling tower. By increasing the distance between the noise source and the receptor, this alternative would reduce noise levels at the outdoor playground receptors.

This alternative was considered but rejected because noise measurements taken at the west end of the level 4 parking lot indicated that ambient noise levels were 63 to 64 dBA (see Appendix E.3).<sup>161</sup> The ambient noise levels at the west end of level 4 exceed the general plan land use compatibility standard for school classrooms of 62.5 dBA. Therefore, this alternative would increase rather than reduce noise levels at the outdoor playground receptors and would not reduce noise impacts at the northern property plane.

### **5.E.3 Alternative Equipment**

Alternative equipment was explored to identify whether quieter equipment could be implemented as an alternative to the proposed project to reduce noise impacts. Two equipment options were explored and determined to be technically feasible as an alternative to the proposed cooling tower: an air-cooled chiller<sup>162</sup>

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<sup>161</sup> Salter, 2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations, Salter Project 21-0548, September 16, 2022.

<sup>162</sup> Daikin, Submittal Data for Whole Foods, Prepared for DC Engineering, July 28, 2022.

and a larger cooling tower.<sup>163</sup> Based on the air-cooled chiller's manufacturer's specifications,<sup>164</sup> this equipment would not result in lower noise levels than the proposed project's equipment and would result in a substantial increase in energy consumption compared to the proposed project's equipment.<sup>165</sup> Therefore, the air-cooled chiller was not carried forward for analysis.

A larger cooling tower in the same location as the proposed project was also considered. Based on the manufacturer's technical sheet, the cooling tower's noise rating would be 8 dB lower than the proposed project's cooling tower.<sup>166</sup> However, noise levels from the larger cooling tower in the same location as the proposed project would be 61 dBA at the north property plane, which would exceed the noise ordinance section 2909(b) commercial and industrial property noise limit of 55 dBA.<sup>167</sup> The noise level at the outdoor playground receptor would be 65 dBA, which would exceed the general plan land use compatibility standard for school classrooms of 62.5 dBA.<sup>168</sup> Therefore, this alternative would not reduce noise impacts compared to the proposed project and was not carried forward for analysis.

#### 5.E.4 No Cooling Tower

An alternative with no cooling tower was considered, which could include a smaller store or fewer refrigerated cases. However, stores that include any number of refrigerated cases would require a cooling tower.<sup>169</sup> Therefore, reducing the size of the proposed grocery store and/or the number of refrigerated cases would not eliminate the need for a cooling tower or similar equipment. This alternative was considered but rejected because refrigerated cases would be required for a full-service Whole Foods grocery store. Without refrigerated cases, the alternative would not meet two of the project's primary objectives: re-use an existing vacant retail space to provide a new full-service grocery store; and provide the local community with access to a wider range of healthy foods and organic grocery and produce options. Refer to Alternative A2: No Project-Future Retail Tenant-No Cold Storage for a potential scenario that includes a future retail tenant in the existing space that would not include refrigeration needs or a cooling tower.

#### 5.E.5 Offsite Alternative

This potential alternative would consider a new Whole Foods Market grocery store of similar size at an offsite location. One of the primary objectives of the proposed project is to provide convenient grocery shopping, with existing parking and loading facilities, to underserved surrounding neighborhoods, including the Western Addition, Laurel Heights, Anza Vista, Richmond, and Lone Mountain. This alternative was considered but rejected because the project sponsor possesses a lease for the existing space at the City Center shopping center and does not have control of and/or a leasing option for another nearby commercial space. Furthermore, the surrounding neighborhoods are fully developed residential areas and do not contain any buildings with approximately 50,000 square feet of available retail space with parking that Whole Foods

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<sup>163</sup> Evapco, *Closed Circuit Cooler Technical Data Sheet*, (1) ESW4 12-44L12-SP, July 20, 2022.

<sup>164</sup> Daikin, Submittal Data for Whole Foods, Prepared for DC Engineering, July 28, 2022.

<sup>165</sup> Roger Dean, DC Engineering, e-mail correspondence with Rachel Schuett, San Francisco Planning Department, July 28, 2022.

<sup>166</sup> Evapco, *Closed Circuit Cooler Technical Data Sheet*, (1) ESW4 12-44L12-SP, July 20, 2022.

<sup>167</sup> Salter, *2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations*, Salter Project 21-0548, September 16, 2022.

<sup>168</sup> Salter, *2675 Geary Boulevard – Whole Foods Market Cooling Tower Alternatives, Noise Analysis Results and Recommendations*, Salter Project 21-0548, September 16, 2022.

<sup>169</sup> Roger Dean, DC Engineering, e-mail correspondence with Rachel Schuett, San Francisco Planning Department, July 28, 2022.



could control.<sup>170,171,172</sup> For these reasons, this potential alternative was not carried forward for detailed evaluation.

### **5.E.6 Reduced Scale Alternative**

This potential alternative would lease approximately 20,000 square feet of the existing vacant retail space on level 3 of the City Center shopping center. This alternative would result in a smaller grocery store and would not provide a full-service grocery store, which is one of the primary objectives of the proposed project. This alternative also may not reduce the less-than-significant-with-mitigation operational noise impacts associated the proposed project because any sized store would require some type of a cooling tower or air-cooled chiller.<sup>173</sup> While a smaller store may require a smaller cooling tower or air-cooled chiller, the size of the cooling tower or air-cooled chiller would be dependent on the number of refrigerated cases, and not the floor area of the store.<sup>174</sup>

This alternative was determined to be speculative for two reasons: even if the Whole Foods Market grocery store is implemented at a reduced scale, the remainder of the vacant retail space under this potential alternative could be occupied by another retail or commercial tenant, resulting in similar operational impacts as the proposed project. In addition, dividing the existing vacant retail space and leasing these spaces separately to different tenants would not be commercially practicable or realistic for the City Center landlord at this site.<sup>175</sup> City Center has explored dividing the space for multiple tenants and determined it would only lease the space to one tenant. The City Center determined that dividing the space would result in a reduction in rentable square footage; and having multiple tenants share the loading dock and back-of-house amenities could create issues related to scheduling, theft of retailers' products, and increased cost to the retailers.<sup>176</sup> For these reasons, this potential alternative was not carried forward for detailed evaluation.

### **5.E.7 Air Pollutant Emissions Reduction**

A package of measures was considered as part of an "air pollutant emissions reduction" alternative, to reduce emissions from the proposed project during both construction and operations, as described below.

**Construction Emissions.** An alternative to reduce off-road construction emissions was considered. The only off-road diesel-powered construction equipment used for the proposed project would be a crane to lift the new HVAC equipment onto the level 3 rooftop. This alternative would require the use of a crane meeting Tier 4 emission standards, which would reduce diesel exhaust emissions and particulate matter. However, given that the crane would only be in use for two days, the emission reductions would be extremely limited. As shown in Table 3.A-7, p. 3.A-31, average daily emissions from the crane would be: 0.003 lbs/day for ROG, 0.032 lbs/day for NO<sub>x</sub> and 0.001 lbs/day for PM<sub>2.5</sub> and PM<sub>10</sub>.

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<sup>170</sup> The largest vacant retail space within 0.25 mile of the project site is 21,000 square feet at 2835 Geary Boulevard. The smallest Whole Foods Market grocery store in San Francisco is 26,623 square feet, located at 1150 Ocean Boulevard. Therefore, the building at 2835 Geary Boulevard would not be suitable for the proposed project even if the property owner was seeking a new commercial tenant.

<sup>171</sup> San Francisco Planning Department, *Memorandum to File Re: Site Survey – Commercial Uses and Vacancies*, Whole Foods at 2675 Geary Boulevard (Case No. 2019-004110ENV-02), November 2022.

<sup>172</sup> Jay Warren, Whole Foods Market, e-mail correspondence with Rachel Schuett, San Francisco Planning Department, November 17, 2022.

<sup>173</sup> Roger Dean, DC Engineering, e-mail correspondence with Rachel Schuett, San Francisco Planning Department, July 28, 2022.

<sup>174</sup> Roger Dean, DC Engineering, e-mail correspondence with Rachel Schuett, San Francisco Planning Department, July 28, 2022.

<sup>175</sup> Loper, Mark, Reuben, Junius, & Rose, LLP, e-mail correspondence with Jennifer Renk, Sheppard Mullin, March 23, 2022.

<sup>176</sup> Loper, Mark, Reuben, Junius, & Rose, LLP, e-mail correspondence with Jennifer Renk, Sheppard Mullin, March 23, 2022.

**Operational Emissions.** Electrification of the loading docks was considered to reduce operational emissions associated with the TRUs installed on trucks carrying perishable goods. Under this alternative, the loading docks would be retrofitted with TRU connectors and charging ports. The TRUs would plug into the charging port once parked, eliminating the need for the TRUs to be powered by the on-board diesel generator.

As discussed in Section 3.A, Air Quality, the California Air Resources Board adopted new regulatory requirements for Transport Refrigeration Units (TRUs) in February 2022. These regulations will require truck-based TRUs to turn over their fleet to meet a 100 percent zero-emissions limit by end of 2029 and trailer-based TRUs to meet the Tier 4 final off-road emissions limit starting with model year 2023.<sup>177</sup> As such, the emissions reductions from electrified loading docks will largely be achieved by the new regulatory requirements.

This alternative was considered but rejected because the proposed project would not result in significant air quality impacts; thus, it would not reduce a significant or potentially significant impact on the environment. Moreover, the emission reductions would be minimal compared to the proposed project.

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<sup>177</sup> Ramboll, *2675 Geary Boulevard Project Update Air Quality and Health Risk Assessment Results*, September 12, 2022. This document is included with this EIR as Appendix C.4.

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# CHAPTER 6

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