SUMMARY

This Summary chapter is intended to highlight major areas of importance in the environmental analysis as required by Section 15123 of the California Environmental Quality Act (CEQA) Guidelines. This chapter briefly summarizes the Pier 70 Mixed-Use District Project (referred to in this Environmental Impact Report [EIR] as "the Proposed Project").

To cover a full range of potential land uses that could be developed under the proposed Special Use District (SUD), this EIR analyzes a maximum residential-use scenario and a maximum commercial-use scenario for the project site (i.e., Maximum Residential Scenario and Maximum Commercial Scenario). Three options for sewer/wastewater treatment, three options for grading around Building 12, and an option for pedestrian passageways are evaluated in this EIR. The Proposed Project also includes four variants that consider modifications to the proposed infrastructure and building systems to enhance sustainability. The EIR analyzes three alternatives to the Proposed Project including a No Project Alternative, Code Compliant Alternative, and 2010 Port Master Plan Alternative.

Following the synopsis of the Proposed Project and scenarios, and its project options and variants, a summary table presents the environmental impacts of the Proposed Project and its project variants, and mitigation and improvement measures identified to reduce significant impacts. Following the summary tables is a description of the alternatives to the Proposed Project that are addressed in this EIR and a table comparing the impacts of those alternatives with the Proposed Project. The final subsection in this chapter is a summary of environmental issues to be resolved and areas of known controversy.

Table S.1: Summary of Impacts of Proposed Project, beginning on p. S.7, provides an overview of the following:

- Environmental impacts with the potential to occur as a result of the Proposed Project and project variants, scenarios, and options;
- The level of significance of the environmental impacts before implementation of any applicable mitigation measures;
- Mitigation measures that would avoid or reduce significant environmental impacts;
- Improvement measures that would reduce less-than-significant impacts; and
- The level of significance for each impact after the mitigation measures are implemented.

A. PROJECT SYNOPSIS

The Pier 70 area (Pier 70) encompasses 69 acres of historic shipyard property along San Francisco's Central Waterfront. Under the Burton Act, Pier 70 is owned by the City and County

of San Francisco (City) through the Port Commission of San Francisco (Port or Port Commission).[1] The Port intends to rehabilitate or redevelop Pier 70 and has selected Forest City Development California, Inc. (Forest City) to act as master developer for 28 acres of the site and initiate rezoning and development of design standards and controls for a multi-phased, mixed-use development on that site and two adjacent parcels.[2] As envisioned, the proposed Pier 70 Mixed-Use District Project would include market-rate and affordable residential uses, commercial use, retail/arts/light-industrial (RALI) uses,[3] parking, shoreline improvements, infrastructure development and street improvements, and public open space. Together, the Port and Forest City are the project sponsors for the Proposed Project.

The proposed Pier 70 Mixed-Use District Project, for which this project-level EIR has been prepared, comprises a project site of an approximately 35-acre area bounded by Illinois Street to the west, 20th Street to the north, San Francisco Bay to the east, and 22nd Street to the south. The project site is south of Mission Bay, east of the Potrero Hill and Dogpatch[4] neighborhoods, and within the northeastern portion of San Francisco's *Central Waterfront Area Plan*, one of four areas covered by the *Eastern Neighborhoods Rezoning and Area Plans (Eastern Neighborhoods Plan)*. The project site is located within Pier 70, except for the 3.6-acre parcel adjacent to Pier 70's southwest corner, known as the Hoedown Yard, which is owned by the Pacific Gas and Electric Company (PG&E). [5]

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1 The Burton Act (Chapter 1333 of the Statutes of 1968) was adopted by the California Legislature in 1968. Under the Burton Act and the companion Burton Act transfer agreement, the State transferred ownership of the tidelands making up San Francisco harbor to the City, with the requirement that the City form a Port Commission with complete authority to use, operate, manage, and regulate the granted lands.

2 The Port and Forest City entered into an Exclusive Negotiating Agreement in July 2011 as authorized by Port Commission Resolution No. 11-49. The Port Commission subsequently endorsed a Term Sheet outlining features of the Proposed Project, which the San Francisco Board of Supervisors endorsed in June 2013 by Resolution No. 201-13.

3 The project sponsors describe the RALI use as including neighborhood retail, arts, eating and drinking places, production distribution and repair, light manufacturing, and entertainment establishments, which are collectively referred to for the purposes of this EIR as RALI uses.

4 The Dogpatch neighborhood is bounded by Mariposa Street to the north, I-280 to the west, Cesar Chavez Street to the south, and Illinois Street to the east.

5 Under an option agreement with PG&E, the City has an option to purchase the Hoedown Yard. PG&E has consented to including the Hoedown Yard in the project sponsors' rezoning efforts; however, the City will not exercise its option to purchase the Hoedown Yard, and development of this parcel may not proceed, unless PG&E locates a suitable relocation site for the current utility operations at the Hoedown Yard. PG&E's consent is reflected in the letter from Kendrick Li, Supervisor Land Acquisition Development, PG&E, to Brad Benson, Port of San Francisco, regarding the Hoedown Yard, June 6, 2014. A copy of this letter is available for public review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2014.001272E. The environmental analysis assumes that the City will exercise its option with PG&E, and will subsequently purchase the Hoedown Yard.

Two development areas constitute the project site. The "28-Acre Site" is an approximately 28-acre area located between 20th, Michigan, and 22nd streets and San Francisco Bay that includes Assessor's Block 4052/Lot 001 and Lot 002 and Block 4111/Lot 003 and Lot 004. The "Illinois Parcels" form an approximately 7-acre site that consists of an approximately 3.4-acre Port-owned parcel, called the "20th/Illinois Parcel," along Illinois Street at 20th Street (Assessor's Block 4110/Lot 001) and the approximately 3.6-acre "Hoedown Yard," at Illinois and 22nd streets (Assessor's Block 4120/Lot 002 and Block 4110/Lot 008A), which is owned by PG&E. The Hoedown Yard includes a City-owned 0.2-acre portion of street right-of-way that bisects the site.[6]

The Proposed Project would amend the *San Francisco General Plan* (*General Plan*) and Planning Code, adding a new Pier 70 SUD, which would establish land use zoning controls for the project site and incorporate the design standards and guidelines in the proposed *Pier 70 SUD Design for Development* document (*Design for Development*).[7] All new construction at the project site must be consistent with the *Design for Development.* The Zoning Maps would be amended to show changes from the current zoning (M-2 [Heavy Industrial] and P [Public]) to the proposed SUD zoning. Height limits on the 28-Acre Site would be increased from 40 feet to 90 feet, except for a 100-foot-wide portion adjacent to the shoreline that would remain at 40 feet, as authorized by Proposition F in November 2014. The Planning Code text amendments would also modify the existing height limits on an eastern portion of the Hoedown Yard from 40 to 65 feet. Height limits are further restricted through the design standards established in the proposed *Design for Development*. The Proposed Project would also amend the Port's *Waterfront Land Use Plan*.

Under the proposed SUD, the Proposed Project would provide a phased mixed-use land use program in which certain parcels could be developed for either primarily commercial uses or residential uses, with much of the ground floor dedicated to RALI uses. In addition, two parcels on the project site (Parcels C1 and C2) could be developed for structured parking or for residential/commercial or residential use, depending on future market demand for parking and future travel demand patterns. Development of the 28-Acre Site would include up to a maximum of approximately 3,422,265 gross square feet (gsf) of construction of new buildings and improvements to existing structures (excluding basement-level square footage allocated to accessory and district parking). New buildings would have maximum heights of 50 to 90 feet. Development of the Illinois Parcels would include up to a maximum of approximately 801,400 gsf in new buildings; these new buildings would not exceed a height of 65 feet, which is the

[6] The 0.2-acre Michigan Street right-of-way is a recorded easement; however, no physical roadway exists.

[7] The proposed *Pier 70 Design for Development* document, which is included as part of the Proposed Project, would set forth the underlying vision and guidelines for development of the project site, and establish standards and design guidelines to implement the intended vision and principles.

existing height limit along Illinois Street on both the Port-owned and the western portion of the Hoedown Yard.

The majority of the project site is located within the Union Iron Works Historic District, which is listed in the National Register of Historic Places (National Register) in recognition of Pier 70's role in the development of steel shipbuilding in the United States and for industrial architecture built at the site between 1884 and the end of World War II. The 28-Acre Site contains 12 of the Historic District's 44 contributing historic resources and one of the ten non-contributing resources. With implementation of the Proposed Project, three contributing resources (Buildings 2, 12, and 21) would be rehabilitated in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and adapted for reuse; one (the existing remnant of Irish Hill[8]) would be mostly retained; and seven structures and sheds (Buildings 11, 15, 16, 19, 25, 32, and 66), containing 92,945 gsf, would be demolished. The Port has proposed to demolish the 30,940-gsf Building 117, located on the project site, prior to approval of the Proposed Project as part of the Historic Core Project.[9,10] The single non-contributing resource on the project site (Slipways 5 through 8, which are currently covered by fill and asphalt) would be partially demolished.

The Proposed Project includes transportation and circulation improvements, new and upgraded utilities and infrastructure, geotechnical and shoreline improvements, and 9 acres of public open space. Three options for sewer/wastewater treatment, three options for grading around Building 12, and an option for pedestrian passageways are evaluated in this EIR. The Proposed Project also includes four variants that consider modifications to the proposed infrastructure and building systems to enhance sustainability.

B. SUMMARY OF IMPACTS AND MITIGATION MEASURES

The Planning Department published Notice of Preparation (NOP) on May 6, 2015, announcing its intent to prepare and distribute an EIR (the NOP is presented as Appendix A to this EIR). Topics analyzed in the EIR are Land Use and Land Use Planning; Population and Housing; Cultural Resources; Transportation and Circulation; Noise and Vibration; Air Quality; Greenhouse Gas Emissions; Wind and Shadow; Recreation; Utilities and Service Systems; Public Services; Biological Resources; Geology and Soils; Hydrology and Water Quality; Hazards and Hazardous Materials; Mineral and Energy Resources; and Agricultural and Forest Resources.

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[8] Today, approximately 1.4 acres remain from the original 20.6 acres of Irish Hill.

[9] San Francisco Planning Department, Notification of Project Receiving Environmental Review, Illinois and 20th Streets/Pier 70 ("20th Street Historic Core"), Case No. 2016-000346ENV, September 8, 2016.

[10] Building 117 is proposed for demolition as part of the 20th Street Historic Core project to allow the adjacent building (Building 116) located on the 20th Street Historic Core site to be rehabilitated to meet fire code.

All impacts of the Proposed Project and its variants, scenarios, and options, and associated mitigation measures and improvement measures identified in this EIR are summarized in Table S.1. These impacts are listed in the same order as they appear in the text of Chapter 4, Environmental Setting and Impacts, of this EIR. For all of the topics evaluated in the EIR, the levels of impacts, with any applicable mitigation measures, are identified as:

- **No Impact** – No adverse changes (or impacts) to the environment are expected.
- **Less Than Significant** – Impact that does 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** – Impact that is reduced to a less-than-significant level through implementation of the identified mitigation measures.
- **Significant and Unavoidable with Mitigation** – Impact that exceeds the defined significance criteria and can be reduced through compliance with existing local, State, and Federal laws and regulations and/or implementation of all feasible mitigation measures, but cannot be reduced to a less-than-significant level.
- **Significant and Unavoidable** – 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.

Where applicable, this table identifies project revisions or conditions, expressed as mitigation measures that would reduce the identified impact(s) to less-than-significant levels. The impact's level of significance after implementation of the required mitigation measure is provided in the column labeled "Level of Significance after Mitigation." All mitigation measures and improvement measures that are applicable to the Proposed Project are also applicable to each of the project variants.

This table should not be relied upon for a thorough understanding of the Proposed Project and its impacts and mitigation needs, but is presented for the reader as an overview of project impacts, mitigation measures, and improvement measures. Please see the relevant environmental topic sections in Chapter 4, Environmental Setting and Impacts, for a thorough discussion and analysis of the impacts of the Proposed Project and its project variants, scenarios, and options, and alternatives, and the mitigation measures identified to address those impacts.

As described below in Table S.1, this EIR identifies ten significant and unavoidable impacts of the Proposed Project. It would:

- Cause one individual Muni route (48 Quintara/24th Street bus routes) to exceed 85 percent capacity utilization in the a.m. and p.m. peak hours in both the inbound and outbound directions;

- Cause loading demand during the peak loading hour to not be adequately accommodated by proposed on-site/off-street loading supply or in proposed on-street loading zones, which may create hazardous conditions or significant delays for transit, bicycles, or pedestrians;
- Contribute considerably to significant cumulative transit impacts on the 48 Quintara/24th Street and 22 Fillmore bus routes;
- Cause a substantial temporary or periodic increase in ambient noise levels during construction in the project vicinity above levels existing without the project;
- Cause substantial permanent increases in ambient noise levels in the project vicinity (22nd Street [east of Tennessee Street to east of Illinois Street]; and Illinois Street [20th Street to south of 22nd Street]);
- Combine with cumulative development to cause a substantial permanent increase in ambient noise levels in the project vicinity (22nd Street [east of Tennessee Street to east of Illinois Street] and Illinois Street [20th Street to south of 22nd Street]);
- Generate fugitive dust and criteria air pollutants during construction, which would violate an air quality standard, contribute substantially to an existing or projected air quality violation, and result in a cumulatively considerable net increase in criteria air pollutants;
- Result in operational emissions of criteria air pollutants at levels that would violate an air quality standard, contribute to an existing or projected air quality violation, and result in a cumulatively considerable net increase in criteria air pollutants; and
- Combine with past, present, and reasonably foreseeable future development in the project area to contribute to cumulative regional air quality impacts.

Significant project-level impacts are identified in Table S.1: Summary of Impacts of the Proposed Project, with mitigation measures that would reduce impacts to less-than-significant levels.

Table S.1. Summary of Impacts of the Proposed Project

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Legend: NI = No Impact; LS = Less than Significant; LSM = less than significant with mitigation; S = Significant; SU = Significant and unavoidable impact; SUM = Significant and unavoidable impact with mitigation			
Land Use and Land Use Planning			
LU-1: The Proposed Project would not physically divide an established community.	LS	None required.	LS
LU-2: The Proposed Project would not conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect, such that a substantial adverse physical change in the environment related to Land Use would result.	LS	None required.	LS
C-LU-1: The Proposed Project, in combination with past, present, or reasonably foreseeable future projects, would not contribute considerably to significant cumulative land use impacts related to (a) physical division of an established	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
community, or (b) conflicts with applicable land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect.			
Population and Housing			
PH-1: The Proposed Project would not induce substantial population growth in an area, either directly or indirectly.	LS	None required.	LS
PH-2: The Proposed Project would not displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing elsewhere.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-PH-1: The Proposed Project under the Maximum Residential and Maximum Commercial scenarios, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to significant cumulative population and housing impacts.	LS	None required.	LS
Cultural Resources (Archeological Resources)			
CR-1: Construction activities for the Proposed Project would cause a substantial adverse change in the significance of archeological resources, if such resources are present within the project site.	S	**M-CR-1a: Archeological Testing, Monitoring, Data Recovery and Reporting** Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the Proposed Project on buried or submerged historical resources. The project sponsors shall retain the services of an archeological consultant from rotational Department Qualified Archeological Consultants List (QACL) maintained by the Planning Department archeologist. The project sponsor shall contact the Department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant's work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in State CEQA Guidelines Section 15064.5 (a) and (c). <u>Consultation with Descendant Communities</u> On discovery of an archeological site[11] associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative[12] of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to consult with the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archeological Resources Report shall be provided to the representative of the descendant group. <u>Archeological Testing Program</u> The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the Proposed Project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.	

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

[12] An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America.

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the Proposed Project, at the discretion of the project sponsors either: A) The Proposed Project shall be redesigned so as to avoid any adverse effect on the significant archeological resource; or B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible. <u>Archeological Monitoring Program</u> If the ERO in consultation with the archeological consultant determines that an archeological monitoring program (AMP) shall be implemented, the AMP would minimally include the following provisions: • The archeological consultant, project sponsors, and ERO shall meet and consult on the scope of the AMP prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. A single AMP or multiple AMPs may be produced to address project phasing. In most cases, any soils-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archeological resources and to their depositional context. The	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource; • The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits; • The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis; If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, pile driving activity that may affect the archeological resource shall be suspended until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the Proposed Project, at the discretion of the project sponsors either: A) The Proposed Project shall be redesigned so as to avoid any adverse effect on the significant archeological resource; or	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible. Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO. <u>Archeological Data Recovery Program</u> If the ERO, in consultation with the archeological consultant, determines that an archeological data recovery programs shall be implemented based on the presence of a significant resource, the archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. The archeological consultant, project sponsors, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historical property that could be adversely affected by the Proposed Project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical. The scope of the ADRP shall include the following elements: • *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations. • *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies. • *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program. • *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities. • *Final Report.* Description of proposed report format and distribution of results. • *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities. <u>Human Remains and Associated or Unassociated Funerary Objects</u> The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the coroner of the City and County of San Francisco and in the event of the coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archeological consultant, project sponsors, ERO, and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (State CEQA Guidelines Section 15064.5(d)). The agreement shall take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Final Archeological Resources Report The archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report. The FARR may be submitted at the conclusion of all construction activities associated with the Proposed Project or on a parcel-by-parcel basis. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archaeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above. **M-CR-1b: Interpretation** Based on a reasonable presumption that archeological resources may be present within the project site, and to the extent that the potential significance of some such resources is premised on CRHR Criteria 1 (Events), 2 (Persons), and/or 3 (Design/Construction), the following measure shall be undertaken to avoid any potentially significant adverse effect from the Proposed Project on buried or submerged historical resources if significant archeological resources are discovered. The project sponsors shall implement an approved program for interpretation of significant archeological resources. The interpretive program may be combined	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		with the program required under Mitigation Measure M-CR-4b: Public Interpretation. The project sponsors shall retain the services of a qualified archeological consultant from the rotational Department Qualified Archeological Consultants List (QACL) maintained by the Planning Department archeologist having expertise in California urban historical and marine archeology. The archeological consultant shall develop a feasible, resource-specific program for post-recovery interpretation of resources. The particular program for interpretation of artifacts that are encountered within the project site will depend upon the results of the data recovery program and will be the subject of continued discussion between the ERO, consulting archeologist, and the project sponsors. Such a program may include, but is not limited to, any of the following (as outlined in the ARDTP): surface commemoration of the original location of resources; display of resources and associated artifacts (which may offer an underground view to the public); display of interpretive materials such as graphics, photographs, video, models, and public art; and academic and popular publication of the results of the data recovery. The interpretive program shall include an on-site component. The archeological consultant's work shall be conducted at the direction of the ERO, and in consultation with the project sponsors. All plans and recommendations for interpretation by the consultant shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO.	
CR-2: Construction activities for the Proposed Project would cause a substantial adverse change in the significance of human remains, if such resources are present within the project site.	S	Implement **M-CR-1a: Archeological Testing, Monitoring, Data Recovery and Reporting**, above.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
CR-3: Construction activities for the Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Section 21074, if such resources are present within the project site.	LS	None required.	LS
C-CR-1: Disturbance of archeological resources, if encountered during construction of the Proposed Project, in combination with other past, present, and future reasonably foreseeable projects, would make a cumulatively considerable contribution to a significant cumulative impact on archeological resources.	S	Implement **Mitigation Measures M-CR-1a and M-CR-1b**, above.	LSM
Cultural Resources (Historic Architectural Resources)			
CR-4: The proposed demolition of contributing buildings would not materially alter, in an adverse manner, the	LS	**Improvement Measure I-CR-4a: Documentation** Before any demolition, rehabilitation, or relocation activities within the UIW Historic District, the project sponsors should retain a professional who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History to prepare written and photographic documentation of all contributing	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources.		buildings proposed for demolition within the UIW Historic District. The documentation for the property should be prepared based on the National Park Service's Historic American Building Survey (HABS)/Historic American Engineering Record (HAER) Historical Report Guidelines. This type of documentation is based on a combination of both HABS/HAER standards and National Park Service's policy for photographic documentation, as outlined in the NRHP and National Historic Landmarks Survey Photo Policy Expansion. The written historical data for this documentation should follow HABS/HAER standards. The written data should be accompanied by a sketch plan of the property. Efforts should also be made to locate original construction drawings or plans of the property during the period of significance. If located, these drawings should be photographed, reproduced, and included in the dataset. If construction drawings or plans cannot be located, as-built drawings should be produced. Either HABS/HAER-standard large format or digital photography should be used. If digital photography is used, the ink and paper combinations for printing photographs must be in compliance with NR-NHL Photo Policy Expansion and have a permanency rating of approximately 115 years. Digital photographs should be taken as uncompressed, TIFF file format. The size of each image should be 1,600 by 1,200 pixels at 330 pixels per inch or larger, color format, and printed in black and white. The file name for each electronic image should correspond with the index of photographs and photograph label. Photograph views for the dataset should include (a) contextual views; (b) views of each side of each building and interior views, where possible; (c) oblique views of buildings; and (d) detail views of character-defining features, including features on the interiors of some buildings. All views should be referenced on a photographic key. This photographic key should be on a map of the property and should show the photograph number with an arrow to indicate the direction of the view. Historic photographs should also be collected, reproduced, and included in the dataset. The project sponsors should transmit such documentation to the History Room of the San Francisco Public Library, and to the Northwest Information Center of the California Historical Information Resource System. The project sponsors should scope the documentation measures with Planning Department Preservation staff.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Department Preservation staff should also review and approve the submitted documentation for adequacy. **Improvement Measure I-CR-4b: Public Interpretation** Following any demolition, rehabilitation, or relocation activities within the project site, the project sponsors should provide a permanent display(s) of interpretive materials concerning the history and architectural features of the District within publicly accessible areas of the project site. The content of the interpretive display(s) should be coordinated and consistent with the sitewide interpretive plan prepared for the 28-Acre Site in coordination with the Port. The specific location, media, and other characteristics of such interpretive display(s) should be presented to Planning Department preservation planning staff for review and comment and to Port preservation staff for approval prior to any demolition or removal activities.	
CR-5: The proposed rehabilitation of Buildings 2, 12, and 21 would materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources and would materially alter the physical characteristics of Building 21 that justify its individual eligibility for inclusion in the California Register of Historical Resources.	S	**Mitigation Measure M-CR-5: Preparation of Historic Resource Evaluation Reports, Review, and Performance Criteria.** Prior to Port issuance of building permits associated with Buildings 2, 12 and 21, Port of San Francisco Preservation staff shall review and approve future rehabilitation design proposals for Buildings 2, 12, and 21. Submitted rehabilitation design proposals for Buildings 2 and 12 shall include, in addition to proposed building design, detail on the proposed landscaping treatment within a 20-foot-wide perimeter of each building. The Port's review and analysis would be informed by Historic Resource Evaluation(s) provided by the project sponsors. The Historic Resource Evaluation(s) shall be prepared by a qualified consultant who meets or exceeds the Secretary of the Interior's Professional Qualification Standards in historic architecture or architectural history. The scope of the Historic Resource Evaluation(s) shall be reviewed and approved by Port Preservation and Planning Department Preservation staff prior to the start of work. Following review of the completed Historic Resource Evaluation(s), Planning Department preservation staff would prepare one or more Historic Resource Evaluation Response(s) that would contain the Department's determination as to the effects, if any, on historical resources of the proposed renovation. The Port	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		shall not issue buildings permits associated with Buildings 2, 12, and 21 until Planning Department and Port preservation staff concur that the design (1) conforms with the Secretary of the Interior's Standards for Rehabilitation; (2) is compatible with the UIW Historic District; and (3) preserves the building's historic materials and character-defining features, and repairs instead of replaces deteriorated features, where feasible. Should alternative materials be proposed for replacement of historic materials, they shall be in keeping with the size, scale, color, texture, and general appearance. The performance criteria shall ensure retention of the following character-defining features of each historic building: • **Building 2**: (1) board-formed concrete construction; (2) six-story height; (3) flat roof; (4) rectangular plan and north-south orientation; (5) regular pattern of window openings on east and west elevations; (6) steel, multi-pane, fixed sash windows (floors 1-5); (7) wood sash windows (floor 6); (8) elevator/stair tower that rises above roofline and projects slightly from west façade. • **Building 12**: (1) steel and wood construction; (2) corrugated steel cladding (except the as-built south elevation which was always open to Building 15); (3) 60-foot height; (4) Aiken roof configuration with five raised, glazed monitors; (5) clerestory multi-lite steel sash awning windows along the north and south sides of the monitors; (6) multi-lite, steel sash awning widows, arranged in three bands (with a double-height bottom band) on the north and west elevations, and in four bands on the east elevation; (7) 12-bay configuration of east and west elevations; (8) north-south roof ridge from which roof slopes gently (1/4 inch per foot) to the east and west • **Building 21:** (1) steel frame construction; (2) corrugated metal cladding; (3) double-gable roof clad in corrugated metal, with wide roof monitor at each gable; (4) multi-lite, double hung wood or horizontal steel sash windows[13]; and (5) two pairs of steel freight loading doors on the north elevation, glazed with 12 lites per door.	

[13] Many of the building's windows have been covered with plywood or metal security grates; the monitor windows have been covered with corrugated metal.

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Planning Department staff and Port staff shall not approve any proposal for rehabilitation of Buildings 2, 12, and 21 unless they find that such a scheme conforms to the Secretary's Standards as specified for each building.	
CR-6: The proposed relocation of contributing Building 21 would not materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources, nor the physical characteristics of Building 21 that justify its eligibility for individual inclusion in the California Register of Historical Resources.	LS	None required.	LS
CR-7: The proposed demolition of non-contributing slipways would not materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
CR-8: The proposed site grading work associated with contributing Buildings 2 and 12 would not materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources.	LS	None required.	LS
CR-9: The proposed alteration of Irish Hill, a contributing landscape feature, would not materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
CR-10: The proposed changes and additions to the network of streets and open space would not materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources.	LS	None required.	LS
CR-11: The proposed infill construction would materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources.	S	**Mitigation Measure M-CR-11: Performance Criteria and Review Process for New Construction** In addition to the standards and guidelines established as part of the Pier 70 SUD and *Design for Development*, new construction and site development within the Pier 70 SUD shall be compatible with the character of the UIW Historic District and shall maintain and support the District's character-defining features through the following performance criteria (terminology used has definition as provided in the *Design for Development*): 1. New construction shall comply with the Secretary of the Interior's Rehabilitation Standard No. 9: "New Addition, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the integrity of the property and its environment." 2. New construction shall comply with the Infill Development Design Criteria in the Port of San Francisco's *Pier 70 Preferred Master Plan* (2010) as found in Chapter 8, pp 57-69 (a policy document endorsed by the Port Commission to guide staff planning at Pier 70).	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		3. New construction shall be purpose-built structures of varying heights and massing located within close proximity to one another. 4. New construction shall not mimic historic features or architectural details of contributing buildings within the District. New construction may reference, but shall not replicate, historic architectural features or details. 5. New construction shall be contextually appropriate in terms of massing, size, scale, and architectural features, not only with the remaining historic buildings, but with one another. 6. New construction shall reinforce variety through the use of materials, architectural styles, rooflines, building heights, and window types and through a contemporary palette of materials as well as those found within the District. 7. Parcel development shall be limited to the new construction zones identified in *Design for Development* Figure 6.3.1: Allowable New Construction Zones. 8. The maximum height of new construction shall be consistent with the parcel heights identified in *Design for Development* Figure 6.4.1: Building Height Maximum. 9. The use of street trees and landscape materials shall be limited and used judiciously within the Pier 70 SUD. Greater use of trees and landscape materials shall be allowed in designated areas consistent with *Design for Development* Figure 4.7.1: Street Trees and Plantings Plan. 10. New construction shall be permitted adjacent to contributing buildings as identified in *Design for Development* Figure 6.3.2: New Construction Buffers. 11. No substantive exterior additions shall be permitted to contributing Buildings 2, 12, or 21. Building 12 did not historically have a south-facing façade; therefore, rehabilitation will by necessity construct a new south elevation wall. Building 21 shall be relocated approximately 75	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		feet east of its present placement, to maintain the general historic context of the resource in spatial relationship to other resources. Building 21's orientation shall be maintained. Building Specific Standards Each development parcel within the Pier 70 SUD has a different physical proximity and visual relationship to the contributing buildings within the UIW Historic District. For those façades immediately adjacent to or facing contributing buildings, building design shall be responsive to identified character-defining features in the manner described in the *Design for Development* Buildings chapter. All other façades shall have greater freedom in the expression of scale, color, use of material, and overall appearance, and shall be permitted if consistent with Secretary Standard No. 9[14] and the *Design for Development*. Table M.CR.1: Building-Specific Responsiveness, indicates resources that are located adjacent to, and have the greatest influence on the design of, the noted development parcel façade. **Table M.CR.1: Building-Specific Responsiveness** **Façade/Parcel Name-Number** / **Contributing Building (Building No.)** North and West; A — 113 North and Northeast; B — 113, 6 North; C1 — 116 East and South; C2 — 12 South and West; D — 2, 12	

[14] Secretary Standard No. 9 states that "New Addition, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale and architectural features to protect the integrity of the property and its environment."

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation

East and South; E1	21
West; E2	12
West; E4	21
North; F/G	12
East; PKN	113-116

Source: ESA 2015.

Palette of Materials

In addition to the standards and guidelines pertaining to application of materials in the *Design for Development*, the following material performance standards would apply to the building design on the development parcels (terminology used has definition as provided in the *Design for Development*):

- Masonry panels that replicate traditional nineteenth or twentieth century brick masonry patterns shall not be allowed on the east façade of Parcel PKN, north and west façades of Parcel A or on the north façade of Parcel C1.
- Smooth, flat, minimally detailed glass curtain walls shall not be allowed on the façades listed above. Glass with expressed articulation and visual depth or that expresses underlying structure is an allowable material throughout the entirety of the Pier 70 SUD.
- Coarse-sand finished stucco shall not be allowed as a primary material within the entirety of the UIW Historic District.
- Bamboo wood siding shall not be allowed on façades listed above or as a primary façade material.
- Laminated timber panels shall not be allowed on façades listed above.
- When considering material selection immediately adjacent to contributing buildings (e.g., 20th Street Historic Core; Buildings 2, 12, and 21; and Buildings 103, 106, 107, and 108 located within or

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		immediately adjacent to the BAE Systems site), characteristics of compatibility and differentiation shall both be taken into account. Material selection shall not duplicate adjacent building primary materials and treatments, nor shall they establish a false sense of historic development. • Avoid conflict of new materials that appear similar or attempt to replicate historic materials. For example, Building 12 has character-defining corrugated steel cladding. As such, the eastern façade of Parcel C2, the northern façade of Parcels F and G, and the southern façade of Parcel D1 shall not use corrugated steel cladding as a primary material. As another example, Building 113 has character-defining brick-masonry construction. As such, the northern and western façades of Parcel A and the eastern façade of Parcel K North shall not use brick masonry as a primary material. • Use of contemporary materials shall reflect the scale and proportions of historic materials used within the UIW Historic District. • Modern materials shall be designed and detailed in a manner to reflect but not replicate the scale, pattern, and rhythm of adjacent contributing buildings' exterior materials. <u>Review Process</u> Prior to Port issuance of building permits associated with new construction, San Francisco Preservation Planning staff, in consultation with the San Francisco Port Preservation staff, shall use the Final Pier 70 SUD *Design for Development* Standards, including Secretary Standard No. 9, to evaluate all future development proposals within the project site for proposed new construction within the UIW Historic District. As part of this effort, project sponsors shall also submit a written memorandum for review and approval to San Francisco Preservation Planning staff that confirms compliance of all proposed new construction with these guiding plans and policies.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
CR-12: The Proposed Project would not materially alter, in an adverse manner, the physical characteristics of other historical resources (outside of the UIW National Register Historic District) that justify inclusion of such resources in a Federal, State or local register of historical resources.	LS	None required.	LS
C-CR-2: The impacts of the Proposed Project, in consideration of other past, present, and future projects, would materially alter, in an adverse manner, the physical characteristics of the UIW National Register Historic District that justify its inclusion in the California Register of Historical Resources, and could materially alter the physical characteristics of Building 21 that justify its individual eligibility for inclusion in the California	S	Implement **Improvement Measure I-CR-4a, Improvement Measure I-CR-4b, Mitigation Measure M-CR-5, and Mitigation Measure M-CR-11**, above.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Register of Historical Resources.			
C-CR-3: The impacts of the Proposed Project, in consideration of other past, present, and future projects, would not materially alter, in an adverse manner, the physical characteristics of historical resources (outside of the UIW National Register Historic District) that justify its inclusion in the California Register of Historical Resources, resulting in a cumulative impact.	LS	None required.	LS
Transportation and Circulation			
TR-1: Construction of the Proposed Project would not result in significant impacts on the transportation and circulation network because they would be of limited duration and temporary.	LS	**Improvement Measure I-TR-A: Construction Management Plan** Traffic Control Plan for Construction – To reduce potential conflicts between construction activities and pedestrians, bicyclists, transit, and autos during construction activities, the project sponsors should require construction contractor(s) to prepare a traffic control plan for major phases of construction (e.g., demolition and grading, construction, or renovation of individual buildings). The project sponsors and their construction contractor(s) will meet with relevant City agencies to coordinate feasible measures to reduce traffic congestion, including temporary transit stop relocations and other measures to reduce potential traffic and transit disruption and pedestrian circulation effects during major phases of construction. For any work within the public right-of-way, the contractor would be required to comply with San Francisco's Regulations for	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Working in San Francisco Streets (i.e., the "Blue Book"), which establish rules and permit requirements so that construction activities can be done safely and with the least possible interference with pedestrians, bicyclists, transit, and vehicular traffic. Additionally, non-construction-related truck movements and deliveries should be restricted as feasible during peak hours (generally 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m., or other times, as determined by SFMTA and the Transportation Advisory Staff Committee [TASC]). In the event that the construction timeframes of the major phases and other development projects adjacent to the project site overlap, the project sponsors should coordinate with City Agencies through the TASC and the adjacent developers to minimize the severity of any disruption to adjacent land uses and transportation facilities from overlapping construction transportation impacts. The project sponsors, in conjunction with the adjacent developer(s), should propose a construction traffic control plan that includes measures to reduce potential construction traffic conflicts, such as coordinated material drop offs, collective worker parking, and transit to job site and other measures. Reduce Single Occupant Vehicle Mode Share for Construction Workers – To minimize parking demand and vehicle trips associated with construction workers, the project sponsors should require the construction contractor to include in the Traffic Control Plan for Construction methods to encourage walking, bicycling, carpooling, and transit access to the project construction sites by construction workers in the coordinated plan. Project Construction Updates for Adjacent Residents and Businesses – To minimize construction impacts on access for nearby residences, institutions, and businesses, the project sponsors should provide nearby residences and adjacent businesses with regularly-updated information regarding construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), travel lane closures, and lane closures via a newsletter and/or website.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
TR-2: The Proposed Project would not cause substantial additional VMT nor substantially induce automobile travel.	LS	None required.	LS
TR-3: The Proposed Project would not create major traffic hazards.	LS	None required.	LS
TR-4: The Proposed Project would not result in any Muni Screenlines exceeding 85 percent capacity utilization nor would it increase ridership by more than five percent on any Muni Screenline forecast to exceed 85 percent capacity utilization under Baseline conditions without the Proposed Project.	LS	None required.	LS
TR-5: The Proposed Project would cause one individual Muni route to exceed 85 percent capacity utilization in the a.m. and p.m. peak hours in both the inbound and outbound directions.	S	**Mitigation Measure M-TR-5: Monitor and increase capacity on the 48 Quintara/24th Street bus routes as needed.** Prior to approval of the Proposed Project's phase applications, project sponsors shall demonstrate that the capacity of the 48 Quintara/24th Street bus route has not exceeded 85 percent capacity utilization, and that future demand associated with build-out and occupancy of the phase will not cause the route to exceed its utilization. Forecasts of travel behavior of future phases could be based on trip generation rates forecast in the EIR or based on subsequent surveys of occupants of the project, possibly including surveys conducted as part of ongoing TDM	SUM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		monitoring efforts required as part of Air Quality Mitigation Measure M-AQ-1f: Transportation Demand Management. If trip generation calculations or monitoring surveys demonstrate that a specific phase of the Proposed Project will cause capacity on the 48 Quintara/24th Street route to exceed 85 percent, the project sponsors shall provide capital costs for increased capacity on the route in a manner deemed acceptable by SFMTA through the following means: • The project sponsors shall pay the capital costs for additional buses (up to a maximum of four in the Maximum Residential Scenario and six in the Maximum Commercial Scenario). While the project sponsors could assist with purchasing the buses, SFMTA would need to find funding to pay for the added operating cost associated with operating increased service made possible by the increased vehicle fleet. The source of that funding has not been established. Alternatively, if SFMTA determines that other measures to increase capacity along the route would be more desirable than adding buses, the project sponsors shall pay an amount equivalent to the cost of the required number of buses toward completion of one or more of the following, as determined by SFMTA: • Convert to using higher-capacity vehicles on the 48 Quintara/24th Street route. In this case, the project sponsors shall pay a portion of the capital costs to convert the route to articulated buses. Some bus stops along the route may not currently be configured to accommodate the longer articulated buses. Some bus zones could likely be extended by removing one or more parking spaces; in some locations, appropriate space may not be available. The project sponsors' contribution may not be adequate to facilitate the full conversion of the route to articulated buses; therefore, a source of funding would need to be established to complete the remainder, including improvements to bus stop capacity at all of the bus stops along the route that do not currently accommodate articulated buses.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• SFMTA may determine that instead of adding more buses to a congested route, it would be more desirable to increase travel speeds along the route. In this case, the project sponsors' contribution would be used to fund a study to identify appropriate and feasible improvements and/or implement a portion of the improvements that would increase travel speeds sufficiently to increase capacity along the bus route such that the project's impacts along the route would be determined to be less than significant. Increased speeds could be accomplished by funding a portion of the planned bus rapid transit system along 16th Street for the 22 Fillmore between Church and Third streets. Adding signals on Pennsylvania Street and 22nd Street may serve to provide increased travel speeds on this relatively short segment of the bus routes. The project sponsors' contribution may not be adequate to fully achieve the capacity increases needed to reduce the project's impacts and SFMTA may need to secure additional sources of funding. • Another option to increase capacity along the corridor is to add new a Muni service route in this area. If this option is selected, project sponsors shall fund purchase of the same number of new vehicles outlined in the first option (four for the Maximum Residential Alternative and six for the Maximum Commercial Alternative) to be operated along the new route. By providing an additional service route, a percentage of the current transit riders on the 48 Quintara/24th Street would likely shift to the new route, lowering the capacity utilization below the 85 percent utilization threshold. As for the first option, funding would need to be secured to pay for operating the new route.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
TR-6: Two individual Muni routes would continue to operate within the 85 percent capacity utilization standard in the a.m. and p.m. peak hours in both the inbound and outbound directions with addition of the Proposed Project.	LS	None required.	LS
TR-7: The Proposed Project would not cause significant impacts on regional transit routes.	LS	None required.	LS
TR-8: Pedestrian travel generated by the Proposed Project could be accommodated on the new roadway and sidewalk network proposed for the project site.	LS	**Improvement Measure I-TR-B: Queue Abatement** It should be the responsibility of the owner/operator of any off-street parking facility with more than 20 parking spaces (excluding loading and car-share spaces) to ensure that vehicle queues do not occur regularly on the public right-of-way. A vehicle queue is defined as one or more vehicles (destined to the parking facility) blocking any portion of any public street, alley, or sidewalk for a consecutive period of 3 minutes or longer on a daily or weekly basis. If a recurring queue occurs, the owner/operator of the parking facility should employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the parking facility, the street(s) to which the facility connects, and the associated land uses (if applicable). Suggested abatement methods include but are not limited to the following: redesign of facility to improve vehicle circulation and/or on-site queue capacity; employment of parking attendants; installation of LOT FULL signs with active management by parking attendants; use of valet parking or other space-efficient	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		parking techniques; use of off-site parking facilities or shared parking with nearby uses; use of parking occupancy sensors and signage directing drivers to available spaces; TDM strategies such as additional bicycle parking, customer shuttles, delivery services; and/or parking demand management strategies such as parking time limits, paid parking, time-of-day parking surcharge, or validated parking. If the Planning Director, or his or her designee, suspects that a recurring queue is present, the Planning Department should notify the property owner in writing. Upon request, the owner/operator should hire a qualified transportation consultant to evaluate the conditions at the site for no less than 7 days. The consultant should prepare a monitoring report to be submitted to the Planning Department for review. If the Planning Department determines that a recurring queue does exist, the facility owner/operator should have 90 days from the date of the written determination to abate the queue.	
TR-9: Existing pedestrian facilities in the vicinity of the project site, while incomplete, would not pose substantial hazards to pedestrian traffic generated by the Proposed Project.	LS	None required.	LS
TR-10: Existing pedestrian facilities at the Proposed Project's access points would present barriers to accessible pedestrian travel.	S	**Mitigation Measure M-TR-10: Improve pedestrian facilities on Illinois Street adjacent to and leading to the project site.** As part of construction of the Proposed Project roadway network, the project sponsors shall fund the following improvements: • Install ADA curb ramps on all corners at the intersection of 22nd Street and Illinois Street • Signalize the intersections of Illinois Street with 20th and 22nd Street.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• Modify the sidewalk on the east side of Illinois Street between 22nd and 20th streets to a minimum of 10 feet. Relocate obstructions, such as fire hydrants and power poles, as feasible, to ensure an accessible path of travel is provided to and from the Proposed Project.	
TR-11: The Proposed Project would not create potentially hazardous conditions for bicyclists and would not interfere with bicycle accessibility to the project site or adjoining areas.	LS	None required.	LS
TR-12: The Proposed Project's loading demand during the peak loading hour would not be adequately accommodated by proposed on-site/off-street loading supply or in proposed on-street loading zones, which may create hazardous conditions or significant delays for transit, bicycles or pedestrians	S	**Mitigation Measure M-TR-12A: Coordinate Deliveries** The Project's Transportation Coordinator shall coordinate with building tenants and delivery services to minimize deliveries during a.m. and p.m. peak periods. Although many deliveries cannot be limited to specific hours, the Transportation Coordinator shall work with tenants to find opportunities to consolidate deliveries and reduce the need for peak period deliveries, where possible. **Mitigation Measure M-TR-12B: Monitor loading activity and convert general purpose on-street parking spaces to commercial loading spaces, as needed.** After completion of the first phase of the Proposed Project, and prior to approval of each subsequent phase, the project sponsors shall conduct a study of utilization of on- and off-street commercial loading spaces. The methodology for the study shall be reviewed and approved by the Planning Department prior to completion. If the result of the study indicates that fewer than 15 percent of the commercial loading spaces are available during the peak loading period, the project sponsors shall incorporate measures to convert existing or proposed general purpose on-	SUM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		street parking spaces to commercial parking spaces in addition to the required off-street spaces.	
TR-13: The Proposed Project would not result in significant impacts on emergency access to the project site or adjacent locations.	LS	**Improvement Measure I-TR-C: Strategies to Enhance Transportation Conditions During Events.** The project's Transportation Coordinator should participate as a member of the Mission Bay Ballpark Transportation Coordination Committee (MBBTCC) and provide at least 1-month notification where feasible prior to the start of any then known event that would overlap with an event at AT&T Park. The City and the project sponsors should meet to discuss transportation and scheduling logistics for occasions with multiple events in the area.	LS
C-TR-1: Construction of the Proposed Project would occur over an approximately 11-year time frame and may overlap with construction of other projects in the vicinity.	LS	Implement **Improvement Measure I-TR-A: Construction Management Plan**, above.	LS
C-TR-2: The Proposed Project's incremental effects on regional VMT would not be significant, when viewed in combination with past, present, and reasonably foreseeable future projects.	LS	None required.	LS
C-TR-3: The Proposed Project would not contribute to a major traffic hazard.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-TR-4: The Proposed Project would contribute considerably to significant cumulative transit impacts on the 48 Quintara/24th Street and 22 Fillmore bus routes.	S	**Mitigation Measure M-C-TR-4A: Increase capacity on the 48 Quintara/24th bus route under the Maximum Residential Scenario.** The project sponsors shall contribute funds for one additional vehicle (in addition to and separate from the four prescribed under Mitigation Measure M-TR-5 for the Maximum Residential Scenario) to reduce the Proposed Project's contribution to the significant cumulative impact to not cumulatively considerable. This shall be considered the Proposed Project's fair share toward mitigating this significant cumulative impact. If SFMTA adopts a strategy to increase capacity along this route that does not involve purchasing and operating additional vehicles, the Proposed Project's fair share contribution shall remain the same, and may be used for one of those other strategies deemed desirable by SFMTA. **Mitigation Measure M-C-TR-4B: Increase capacity on the 22 Fillmore bus route under the Maximum Commercial Scenario.** The project sponsors shall contribute funds for two additional vehicles to reduce the Proposed Project's contribution to the significant cumulative impact to not considerable. This shall be considered the Proposed Project's fair share toward mitigating this cumulative impact. If SFMTA adopts an alternate strategy to increase capacity along this route that does not involve purchasing and operating additional vehicles, the Proposed Project's fair share contribution shall remain the same, and may be used for one of those other strategies deemed desirable by SFMTA.	SUM
C-TR-5: The Proposed Project would not contribute considerably to a significant cumulative impact on the KT Third Ingleside Muni line.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-TR-6: The Proposed Project would not contribute considerably to significant cumulative impacts at Muni Downtown screenlines.	LS	None required.	LS
C-TR-7: The Proposed Project would not contribute considerably to significant cumulative impacts on regional transit routes.	LS	None required.	LS
C-TR-8: The Proposed Project would not contribute considerably to significant cumulative pedestrian impacts.	LS	None required.	LS
C-TR-9: The Proposed Project would not contribute considerably to a significant cumulative bicycle impact.	LS	None required.	LS
C-TR-10: The Proposed Project would not contribute to a significant cumulative loading impact.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-TR-11: The Proposed Project would not contribute considerably to a significant cumulative impact on emergency vehicle access.	LS	None required.	LS
Noise and Vibration			
NO-1: Construction of the Proposed Project would expose people to or generate noise levels in excess of standards in the Noise Ordinance (Article 29 of the San Francisco Police Code) or applicable standards of other agencies.	S	**Mitigation Measure M-NO-1: Construction Noise Control Plan.** Over the project's approximately 11-year construction duration, project contractors for all construction projects on the Illinois Parcels and 28-Acre Site will be subject to construction-related time-of-day and noise limits specified in Section 2907(a) of the Police Code, as outlined above. Therefore, prior to construction, a Construction Noise Control Plan shall be prepared by the project sponsors and submitted to the Department of Building Inspection. The construction noise control plan shall demonstrate compliance with the Noise Ordinance limits. Noise reduction strategies that could be incorporated into this plan to ensure compliance with ordinance limits may include, but are not limited to, the following: • Require the general contractor to ensure that equipment and trucks used for project construction utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically-attenuating shields or shrouds). • Require the general contractor to locate stationary noise sources (such as compressors) as far from adjacent or nearby sensitive receptors as possible, to muffle such noise sources, and to construct barriers around such sources and/or the construction site, which could reduce construction noise by as much as 5 dBA. To further reduce noise, the contractor shall locate stationary equipment in pit areas or excavated areas, to the maximum extent practicable.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• Require the general contractor to use impact tools (e.g., jack hammers, pavement breakers, and rock drills) that are hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used, along with external noise jackets on the tools, which would reduce noise levels by as much as 10 dBA. • Include noise control requirements for construction equipment and tools, including concrete saws, in specifications provided to construction contractors to the maximum extent practicable. Such requirements could include, but are not limited to, erecting temporary plywood noise barriers around a construction site, particularly where a site adjoins noise-sensitive uses; utilizing noise control blankets on a building structure as the building is erected to reduce noise levels emanating from the construction site; performing all work in a manner that minimizes noise; using equipment with effective mufflers; undertaking the most noisy activities during times of least disturbance to surrounding residents and occupants; and selecting haul routes that avoid residential uses.[15] • Prior to the issuance of each building permit, along with the submission of construction documents, submit to the Planning Department and Department of Building Inspection or the Port, as appropriate, a plan to track and respond to complaints pertaining to construction noise. The plan shall include the following measures: (1) a procedure and phone numbers for notifying the Department of Building Inspection or the Port,	

[15] Based on FHWA documentation, the following reductions can be achieved: 3-dBA reduction for a noise barrier or other obstruction (like a dirt mound) that interrupts the line-of-sight between the noise source and the receptor; 8-dBA reduction if the noise source is completely enclosed or completely shielded with a solid barrier located close to the source; 5-dBA reduction if the enclosure and/or barrier have some gaps in it; 10-dBA reduction if the noise source is completely enclosed and completely shielded with a solid barrier located close to the source; 15-dBA reduction if a building stands between the noise source and receptor and completely shields the noise source; and 5-dBA reduction if noise source is enclosed or shielded with heavy vinyl noise curtain material (e.g., SoundSeal BBC-13-2 or equivalent).

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		the Department of Public Health, and the Police Department (during regular construction hours and off-hours); (2) a sign posted on-site describing permitted construction days and hours, noise complaint procedures, and a complaint hotline number that shall be answered at all times during construction; (3) designation of an on-site construction complaint and enforcement manager for the project; and (4) notification of neighboring residents and non-residential building managers within 300 feet of the project construction area at least 30 days in advance of extreme noise-generating activities (such as pile driving) about the estimated duration of the activity.	
NO-2: Construction of the Proposed Project would cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	S	**Mitigation Measure M-NO-2: Noise Control Measures During Pile Driving.** The Construction Noise Control Plan (required under Mitigation Measure M-NO-1) shall also outline a set of site-specific noise and vibration attenuation measures for each construction phase when pile driving is proposed to occur. These attenuation measures shall be included wherever impact equipment is proposed to be used on the Illinois Parcels and/or 28-Acre Site. As many of the following control strategies shall be included in the Noise Control Plan, as feasible: • Implement "quiet" pile-driving technology such as pre-drilling piles where feasible to reduce construction-related noise and vibration. • Use pile-driving equipment with state-of-the-art noise shielding and muffling devices. • Use pre-drilled or sonic or vibratory drivers, rather than impact drivers, wherever feasible (including slipways) and where vibration-induced liquefaction would not occur. • Schedule pile-driving activity for times of the day that minimize disturbance to residents as well as commercial uses located on-site and nearby. • Erect temporary plywood or similar solid noise barriers along the boundaries of each Proposed Project parcel as necessary to shield affected sensitive receptors. • Other equivalent technologies that emerge over time.	SUM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
NO-3: Construction of the Proposed Project would expose people and structures to or generate excessive groundborne vibration levels.	S	**Mitigation Measure M-NO-3: Vibration Control Measures During Construction.** As part of the Construction Noise Control Plan required under Mitigation Measure M-NO-1, appropriate vibration controls (including pre-drilling pile holes and using smaller vibratory equipment) shall be specified to ensure that the vibration limit of 0.5 in/sec PPV can be met at adjacent or nearby existing structures and Proposed Project buildings located on the Illinois Parcels and/or 28-Acre Site, except as noted below: • Where pile driving and other construction activities involving the use of heavy equipment would occur in proximity to any contributing building to the Union Iron Works Historic District, the project sponsors shall undertake a monitoring program to minimize damage to adjacent historic buildings and to ensure that any such damage is documented and repaired. The monitoring program, which shall apply within 160 feet where pile driving would be used and within 25 feet of other heavy equipment operation, shall include the following components: o Prior to the start of any ground-disturbing activity, the project sponsors shall engage a historic architect or qualified historic preservation professional to undertake a pre-construction survey of historical resource(s) identified by the San Francisco Planning Department within 160 feet of planned construction to document and photograph the buildings' existing conditions. o Based on the construction and condition of the resource(s), a structural engineer or other qualified entity shall establish a maximum vibration level that shall not be exceeded at each building, based on existing conditions, character-defining features, soils conditions and anticipated construction practices in use at the time (a common standard is 0.2 inch per second, peak particle velocity). o To ensure that vibration levels do not exceed the established standard, a qualified acoustical/vibration consultant shall monitor vibration levels at each structure within 160 feet of planned	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		construction and shall prohibit vibratory construction activities that generate vibration levels in excess of the standard. Should vibration levels be observed in excess of the standard, construction shall be halted and alternative construction techniques put in practice. (For example, pre-drilled piles could be substituted for driven piles, if soil conditions allow; smaller, lighter equipment could possibly also be used in some cases.) The consultant shall conduct regular periodic inspections of each building within 160 feet of planned construction during ground-disturbing activity on the project site. Should damage to a building occur as a result of ground-disturbing activity on the site, the building(s) shall be remediated to its pre-construction condition at the conclusion of ground-disturbing activity on the site. • In areas with a "very high" or "high" susceptibility for vibration-induced liquefaction or differential settlement risks, the project's geotechnical engineer shall specify an appropriate vibration limit based on proposed construction activities and proximity to liquefaction susceptibility zones and modify construction practices to ensure that construction-related vibration does not cause liquefaction hazards at these homes.	
NO-4: Operation of the Proposed Project would result in a substantial permanent increase in ambient noise levels in the immediate project vicinity, or permanently	S	**Mitigation Measure M-NO-4a: Stationary Equipment Noise Controls.** Noise attenuation measures shall be incorporated into all stationary equipment (including HVAC equipment and emergency generators) installed on buildings constructed on the Illinois Parcels and 28-Acre Site as well as into the below-grade or enclosed wastewater pump station as necessary to meet noise limits specified in Section 2909 of the Police Code.[16] Interior noise limits shall be met under both existing and future noise conditions, accounting for foreseeable	LSM

[16] Under Section 2909 of the Police Code, stationary sources are not permitted to result in noise levels that exceed the existing ambient (L_{90}) noise level by more than 5 dBA on residential property, 8 dBA on commercial and industrial property, and 10 dBA on public property. Section 2909(d) states that no fixed noise source may cause the noise level measured inside any sleeping or living room in a dwelling unit on residential property to exceed 45 dBA between 10:00 p.m. and 7:00 a.m. or 55 dBA between 7:00 a.m. and 10:00 p.m. with windows open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
expose persons to noise levels in excess of standards in the San Francisco General Plan and San Francisco Noise Ordinance		changes in noise conditions in the future (i.e., changes in on-site building configurations). Noise attenuation measures could include provision of sound enclosures/barriers, addition of roof parapets to block noise, increasing setback distances from sensitive receptors, provision of louvered vent openings, location of vent openings away from adjacent commercial uses, and restriction of generator testing to the daytime hours. **Mitigation Measure M-NO-4b: Design of Future Noise-Generating Uses near Residential Uses.** Future commercial/office and RALI uses shall be designed to minimize the potential for sleep disturbance at any future adjacent residential uses. Design approaches such as the following could be incorporated into future development plans to minimize the potential for noise conflicts of future uses on the project site: • Design of Future Noise-Generating Commercial/Office and RALI Uses. To reduce potential conflicts between sensitive receptors and new noise-generating commercial or RALI uses located adjacent to these receptors, exterior facilities such as loading areas/docks, trash enclosures, and surface parking lots shall be located on the sides of buildings facing away from existing or planned sensitive receptors (residences or passive open space). If this is not feasible, these types of facilities shall be enclosed or equipped with appropriate noise shielding. • Design of Future Above-Ground Parking Structure. If parking structures are constructed on Parcels C1 or C2, the sides of the parking structures facing adjacent or nearby existing or planned residential uses shall be designed to shield residential receptors from noise associated with parking cars.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
NO-5: Operation of the Proposed Project would cause substantial permanent increases in ambient noise levels along some roadway segments in the project site vicinity.	S	Implement **Mitigation Measure M-AQ-1g** and **Mitigation Measure M-NO-6a**, above and below.	SUM
NO-6: The Proposed Project's occupants would be substantially affected by existing and future noise levels on the site.	S	**Mitigation Measure M-NO-6: Design of Future Noise-Sensitive Uses** Prior to issuance of a building permit for vertical construction of specific residential building design on each parcel, a noise study shall be conducted by a qualified acoustician, who shall determine the need to incorporate noise attenuation measures into the building design in order to meet Title 24's interior noise limit for residential uses as well as the City's (Article 29, Section 2909(d)) 45-dBA (L_{dn}) interior noise limit for residential uses. This evaluation shall account for noise shielding by buildings existing at the time of the proposal, potential increases in ambient noise levels resulting from the removal of buildings that are planned to be demolished, all planned commercial or open space uses in adjacent areas, any known variations in project build-out that have or will occur (building heights, location, and phasing), any changes in activities adjacent to or near the Illinois Parcels or 28-Acre Site (given the Proposed Project's long build-out period), any new shielding benefits provided by surrounding buildings that exist at the time of development, future cumulative traffic noise increases on adjacent roadways, existing and planned stationary sources (i.e., emergency generators, HVAC, etc.), and future noise increases from all known cumulative projects located with direct line-of-sight to the project building. To minimize the potential for sleep disturbance effects from tonal noise or nighttime noise events associated with nearby industrial uses, predicted noise levels at each project building shall account for 24/7 operation of the BAE Systems Ship Repair facility, 24/7 transformer noise at Potrero Substation (if it	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		remains an open air facility), and industrial activities at the AIC, to the extent such use(s) are in operation at the time the analysis is conducted. Noise reduction strategies such as the following could be incorporated into the project design as necessary to meet Title 24 interior limit and minimize the potential for sleep disturbance from adjacent industrial uses: • Orient bedrooms away from major noise sources (i.e., major streets, open space/recreation areas where special events would occur, and existing adjacent industrial uses, including AIC, Potrero Substation, and the BAE site) and/or provide additional enhanced noise insulation features (higher STC ratings) or mechanical ventilation to minimize the effects of maximum instantaneous noise levels generated by these uses even though there is no code requirement to reduce L_{max} noise levels. Such measures shall be implemented on Parcels D and E1 (both scenarios), Building 2 (Maximum Residential Scenario only), Parcels PKN (both scenarios), PKS (both scenarios), and HDY (Maximum Residential Scenario only); • Utilize enhanced exterior wall and roof-ceiling assemblies (with higher STC ratings), including increased insulation; • Utilize windows with higher STC / Outdoor/Indoor Transmission Class (OITC) ratings; • Employ architectural sound barriers as part of courtyards or building open space to maximize building shielding effects, and locate living spaces/bedrooms toward courtyards wherever possible; and • Locate interior hallways (accessing residential units) adjacent to noisy streets or existing/planned industrial or commercial development.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
NO-7: The Proposed Project's special events would result in substantial periodic, temporary noise increases	S	**Mitigation Measure M-NO-7: Noise Control Plan for Special Outdoor Amplified Sound.** The project sponsor shall develop and implement a Noise Control Plan for operations at the proposed entertainment venues to reduce the potential for noise impacts from public address and/or amplified music. This Noise Control Plan shall contain the following elements: • The project sponsor shall comply with noise controls and restrictions in applicable entertainment permit requirements for outdoor concerts. • Speaker systems shall be directed away from the nearest sensitive receptors to the degree feasible. • Outdoor speaker systems shall be operated consistent with the restrictions of Section 2909 of the San Francisco Police Code, and conform to a performance standard of 8 dBA and dBC over existing ambient L90 noise levels at the nearest residential use.	LSM
NO-8: Operation of the Proposed Project would not expose people and structures to or generate excessive groundborne vibration or noise levels.	LS	**None required.**	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-NO-1: Construction of the Proposed Project combined with cumulative construction noise in the project area would not cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.	LS	**None required.**	LS
C-NO-2: Operation of the Proposed Project, in combination with other cumulative development would cause a substantial permanent increase in ambient noise levels in the project vicinity.	S	Implement **Mitigation Measure M-AQ-1g**, below.	SUM
Air Quality			
AQ-1: During construction, the Proposed Project would generate fugitive dust and criteria air pollutants, which would violate an air quality standard, contribute substantially to an existing or projected air quality violation, and result in a cumulatively	S	**Mitigation Measure M-AQ-1a: Construction Emissions Minimization** The following mitigation measure is required during construction of Phases 3, 4, and 5, or after build-out of 1.3 million gross square feet of development, whichever comes first: A. *Construction Emissions Minimization Plan.* Prior to issuance of a site permit, the project sponsors shall submit a Construction Emissions Minimization Plan (Plan) to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. The Plan shall detail project compliance with the following requirements:	SUM

Table S.1 Continued

<table>
<tr><th>Impact</th><th>Level of Significance before Mitigation</th><th>Mitigation and Improvement Measures</th><th>Level of Significance after Mitigation</th></tr>
<tr><td>considerable net increase in criteria air pollutants.</td><td></td><td>1. Where access to alternative sources of power is available, portable diesel generators used during construction shall be prohibited. Where portable diesel engines are required because alternative sources of power are not available, the diesel engine shall meet the EPA or CARB Tier 4 off-road emission standards and be fueled with renewable diesel (at least 99 percent renewable diesel or R99), if commercially available, as defined below.
2. All off-road equipment greater than 25 horsepower that operates for more than 20 total hours over the entire duration of construction activities shall have engines that meet the EPA or CARB Tier 4 off-road emission standards and be fueled with renewable diesel (at least 99 percent renewable diesel or R99), if commercially available. If engines that comply with Tier 4 off-road emission standards are not commercially available, then the project sponsors shall provide the next cleanest piece of off-road equipment as provided by the step-down schedules in Table M-AQ-1-1.
Table M-AQ-1-1: Off-Road Equipment Compliance Step-Down Schedule
<table>
<tr><th>Compliance Alternative</th><th>Engine Emission Standard</th><th>Emissions Control</th></tr>
<tr><td>1</td><td>Tier 3</td><td>CARB PM VDECS (85%)[1]</td></tr>
<tr><td>2</td><td>Tier 2</td><td>CARB PM VDECS (85%)</td></tr>
</table></td><td></td></tr>
</table>

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		How to use the table: If the requirements of (A)(2) cannot be met, then the project sponsors would need to meet Compliance Alternative 1. Should the project sponsors not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. [1] CARB, Currently Verified Diesel Emission Control Strategies (VDECS). Available online at http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm. Accessed January 14, 2016.	
		i. With respect to Tier 4 equipment, "commercially available" shall mean the availability taking into consideration factors such as: (i) critical path timing of construction; and (ii) geographic proximity of equipment to the project site. ii. With respect to renewable diesel, "commercially available" shall mean the availability taking into consideration factors such as: (i) critical path timing of construction; (ii) geographic proximity of fuel source to the project site; and (iii) cost of renewable diesel is within 10 percent of Ultra Low Sulfur Diesel #2 market price. iii. The project sponsors shall maintain records concerning its efforts to comply with this requirement. Should the project sponsor determine either that an off-road vehicle that meets Tier 4 emissions standards or that renewable diesel are not commercially available, the project sponsor shall submit documentation to the satisfaction of the ERO and, for the former condition, shall identify the next cleanest piece of equipment that would be use, in compliance with Table M-AQ-1-1. 3. The project sponsors shall ensure that future developers or their contractors require the idling time for off-road and on-road equipment be limited to no more than 2 minutes, except as provided in exceptions to the applicable State regulations regarding idling for	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, and Chinese) in designated queuing areas and at the construction site to remind operators of the 2-minute idling limit. 4. The project sponsors shall require that each construction contractor mandate that construction operators properly maintain and tune equipment in accordance with manufacturer specifications. 5. The Plan shall include best available estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase and shall be updated pursuant to the reporting requirements in Section B below. Reporting requirements for off-road equipment descriptions and information shall include as much detail as is available, but are not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For Verified Diesel Emission Control Strategies (VDECS) installed, descriptions and information shall include technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date and hour meter reading on installation date. The Plan shall also indicate whether renewable diesel will be used to power the equipment. The Plan shall also include anticipated fuel usage and hours of operation so that emissions can be estimated. 6. The project sponsors and their construction contractors shall keep the Plan available for public review on site during working hours. Each construction contractor shall post at the perimeter of the project site a legible and visible sign summarizing the requirements of the Plan. The sign shall also state that the public may ask to inspect the Plan at any time during working hours, and shall explain how to request inspection of the Plan. Signs shall be posted on all sides of the construction site that face a public right-of-way. The	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		project sponsors shall provide copies of the Plan to members of the public as requested. B. *Reporting.* Quarterly reports shall be submitted to the ERO indicating the construction activities undertaken and information about the off-road equipment used, including the information required in Section A(5). In addition, reporting shall include the approximate amount of renewable diesel fuel used. Within 6 months of the completion of all project construction activities, the project sponsors shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. The final report shall include detailed information required in Section A(5). In addition, reporting shall include the actual amount of renewable diesel fuel used. C. *Certification Statement and On-site Requirements.* Prior to the commencement of construction activities, the project sponsors shall certify through submission of city-standardized forms (1) compliance with the Plan, and (2) all applicable requirements of the Plan have been incorporated into contract specifications. **Mitigation Measure M-AQ-1b: Diesel Backup Generator Specifications** To reduce NOx associated with operation of the Maximum Commercial or Maximum Residential Scenarios, the project sponsors shall implement the following measures. A. All new diesel backup generators shall: 1. have engines that meet or exceed CARB Tier 4 off-road emission standards which have the lowest NOx emissions of commercially available generators; and	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		2. be fueled with renewable diesel, if commercially available, which has been demonstrated to reduce NOx emissions by approximately 10 percent. B. All new diesel backup generators shall have an annual maintenance testing limit of 50 hours, subject to any further restrictions as may be imposed by the BAAQMD in its permitting process. C. For each new diesel backup generator permit submitted to BAAQMD for the project, anticipated location, and engine specifications shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator from the San Francisco DBI or the Port. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The operator of the facility at which the generator is located shall maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and provide this information for review to the Planning Department within 3 months of requesting such information. **Mitigation Measure M-AQ-1c: Use Low and Super-compliant VOC Architectural Coatings in Maintaining Buildings through** Covenants Conditions and Restrictions (**CC&Rs) and Ground Lease** The Project sponsors shall require all developed parcels to include within their CC&R's and/or ground leases requirements for all future interior spaces to be repainted only with "Super-Compliant" Architectural Coatings (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings). "Low-VOC" refers to paints that meet the more stringent regulatory limits in South Coast AQMD Rule 1113; however, many manufacturers have reformulated to levels well below these limits. These are referred to as "Super-Compliant" Architectural Coatings.	

Table S.1 Continued

	Mitigation Measure M-AQ-1d: Promote use of Green Consumer Products The project sponsors shall provide education for residential and commercial tenants concerning green consumer products. Prior to receipt of any certificate of final occupancy and every five years thereafter, the project sponsors shall work with the San Francisco Department of Environment (SF Environment) to develop electronic correspondence to be distributed by email annually to residential and/or commercial tenants of each building on the project site that encourages the purchase of consumer products that generate lower than typical VOC emissions. The correspondence shall encourage environmentally preferable purchasing and shall include contact information and links to SF Approved. The website may also be used as an informational resource by businesses and residents. **Mitigation Measure M-AQ-1e: Electrification of Loading Docks** The project sponsors shall ensure that loading docks for retail, light industrial or warehouse uses that will receive deliveries from refrigerated transport trucks incorporate electrification hook-ups for transportation refrigeration units to avoid emissions generated by idling refrigerated transport trucks. **Mitigation Measure M-AQ-1f: Transportation Demand Management.** The project sponsors shall prepare and implement a Transportation Demand Management (TDM) Plan with a goal of reducing estimated one-way vehicle trips by 20 percent compared to the total number of one-way vehicle trips identified in the project's Transportation Impact Study at project build-out. To ensure that this reduction goal could be reasonably achieved, the TDM Plan will have a monitoring goal of reducing by 20 percent the one-way vehicle trips calculated for each building that has received a Certificate of Occupancy and is at least 75% occupied compared to the one-way vehicle trips anticipated for that building based on anticipated development on that parcel, using the trip generation rates contained within the project's Transportation Impact Study. There shall be a Transportation Management Association that would be responsible for the administration, monitoring, and adjustment of the TDM Plan. The project sponsor is responsible for identifying the components of the TDM Plan that could reasonably be expected to achieve the reduction goal for each new building associated with the project, and for making good faith efforts to implement them. The TDM Plan may include, but is not limited to, the types of measures summarized below for explanatory example purposes. Actual TDM measures	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		selected should include those from the TDM Program Standards, which describe the scope and applicability of candidate measures in detail and include: • Active Transportation: Provision of streetscape improvements to encourage walking, secure bicycle parking, shower and locker facilities for cyclists, subsidized bike share memberships for project occupants, bicycle repair and maintenance services, and other bicycle-related services; • Car-Share: Provision of car-share parking spaces and subsidized memberships for project occupants; • Delivery: Provision of amenities and services to support delivery of goods to project occupants; • Family-Oriented Measures: Provision of on-site childcare and other amenities to support the use of sustainable transportation modes by families; • High-Occupancy Vehicles: Provision of carpooling/vanpooling incentives and shuttle bus service; • Information and Communications: Provision of multimodal wayfinding signage, transportation information displays, and tailored transportation marketing services; • Land Use: Provision of on-site affordable housing and healthy food retail services in underserved areas; • Parking: Provision of unbundled parking, short term daily parking provision, parking cash out offers, and reduced off-street parking supply. The TDM Plan shall include specific descriptions of each measure, including the degree of implementation (e.g., for how long will it be in place, how many tenants or visitors will it benefit, on which locations within the site will it be placed, etc.), and the population that each measure is intended to serve (e.g. residential tenants, retail visitors, employees of tenants, visitors, etc.). It shall also include a	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		commitment to monitoring of person and vehicle trips traveling to and from the project site to determine the TDM Plan's effectiveness, as outlined below. The TDM Plan shall be submitted to the City to ensure that components of the TDM Plan intended to meet the reduction target are shown on the plans and/or ready to be implemented upon the issuance of each certificate of occupancy. *TDM Plan Monitoring and Reporting*: The Transportation Management Association, through an on-site Transportation Coordinator, shall collect data and make monitoring reports available for review and approval by the Planning Department staff. • Timing: Monitoring data shall be collected and reports shall be submitted to Planning Department staff every year (referred to as "reporting periods"), until five consecutive reporting periods display the project has met the reduction goal, at which point monitoring data shall be submitted to Planning Department staff once every three years. The first monitoring report is required 18 months after issuance of the First Certificate of Occupancy for buildings that include off-street parking or the establishment of surface parking lots or garages that bring the project's total number of off-street parking spaces to greater than or equal to 500. Each trip count and survey (see below for description) shall be completed within 30 days following the end of the applicable reporting period. Each monitoring report shall be completed within 90 days following the applicable reporting period. The timing shall be modified such that a new monitoring report shall be required 12 months after adjustments are made to the TDM Plan in order to meet the reduction goal, as may be required in the "TDM Plan Adjustments" heading below. In addition, the timing may be modified by the Planning Department as needed to consolidate this requirement with other monitoring and/or reporting requirements for the project. • Components: The monitoring report, including trip counts and surveys, shall include the following components OR comparable alternative	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		methodology and components as approved or provided by Planning Department staff: o Trip Count and Intercept Survey: Trip count and intercept survey of persons and vehicles arriving and leaving the project site for no less than two days of the reporting period between 6:00 a.m. and 8:00 p.m. One day shall be a Tuesday, Wednesday, or Thursday during one week without federally recognized holidays, and another day shall be a Tuesday, Wednesday, or Thursday during another week without federally recognized holidays. The trip count and intercept survey shall be prepared by a qualified transportation or qualified survey consultant and the methodology shall be approved by the Planning Department prior to conducting the components of the trip count and intercept survey. It is anticipated that the Planning Department will have a standard trip count and intercept survey methodology developed and available to project sponsors at the time of data collection. o Travel Demand Information: The above trip count and survey information shall be able to provide travel demand analysis characteristics (work and non-work trip counts, origins and destinations of trips to/from the project site, and modal split information) as outlined in the Planning Department's *Transportation Impact Analysis Guidelines for Environmental Review*, October 2002, or subsequent updates in effect at the time of the survey. o Documentation of Plan Implementation: The TDM Coordinator shall work in conjunction with the Planning Department to develop a survey (online or paper) that can be reasonably completed by the TDM Coordinator and/or TMA staff to document the implementation of TDM program elements and other basic information during the reporting period. This survey shall be included in the monitoring report submitted to Planning Department staff.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		○ Assistance and Confidentiality: Planning Department staff will assist the TDM Coordinator on questions regarding the components of the monitoring report and shall ensure that the identity of individual survey responders is protected. *TDM Plan Adjustments.* The TDM Plan shall be adjusted based on the monitoring results if three consecutive reporting periods demonstrate that measures within the TDM Plan are not achieving the reduction goal. The TDM Plan adjustments shall be made in consultation with Planning Department staff and may require refinements to existing measures (e.g., change to subsidies, increased bicycle parking), inclusion of new measures (e.g., a new technology), or removal of existing measures (e.g., measures shown to be ineffective or induce vehicle trips). If three consecutive reporting periods' monitoring results demonstrate that measures within the TDM Plan are not achieving the reduction goal, the TDM Plan adjustments shall occur within 270 days following the last consecutive reporting period. The TDM Plan adjustments shall occur until three consecutive reporting periods' monitoring results demonstrate that the reduction goal is achieved. If the TDM Plan does not achieve the reduction goal then the City shall impose additional measures to reduce vehicle trips as prescribed under the development agreement, which may include restriction of additional off-street parking spaces beyond those previously established on the site, capital or operational improvements intended to reduce vehicle trips from the project, or other measures that support sustainable trip making, until three consecutive reporting periods' monitoring results demonstrate that the reduction goal is achieved. **Mitigation Measure M-AQ-1g: Additional Mobile Source Control Measures** The following Mobile Source Control Measures from the BAAQMD's 2010 Clean Air Plan shall be implemented: • Promote use of clean fuel-efficient vehicles through preferential (designated and proximate to entry) parking and/or installation of charging stations beyond the level required by the City's Green Building code, from 8 to 20 percent.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• Promote zero-emission vehicles by requesting that any car share program operator include electric vehicles within its car share program to reduce the need to have a vehicle or second vehicle as a part of the TDM program that would be required of all new developments. **Mitigation Measure M-AQ-1h: Offset of Operational Emissions** Prior to issuance of the final certificate of occupancy for the final building associated with Phase 3, or after build out of 1.3 million square feet of development, whichever comes first, the project sponsors, with the oversight of the ERO, shall either: **(1) Directly fund or implement a specific offset project within San Francisco** to achieve reductions of 25 tons per year of ozone precursors and 1 ton of PM_{10}. This offset is intended to offset the estimated annual tonnage of operational ozone precursor and PM_{10} emissions under the buildout scenario realized at the time of completion of Phase 3. To qualify under this mitigation measure, the specific emissions offset project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements. A preferred offset project would be one implemented locally within the City and County of San Francisco. Prior to implementation of the offset project, the project sponsors must obtain the ERO's approval of the proposed offset project by providing documentation of the estimated amount of emissions of ROG, NOx, and PM_{10} to be reduced (tons per year) within the SFBAAB from the emissions reduction project(s). The project sponsors shall notify the ERO within 6 months of completion of the offset project for verification; or **(2) Pay a one-time mitigation offset fee** to the BAAQMD's Strategic Incentives Division in an amount no less than $18,030 per weighted ton of ozone precursors and PM_{10} per year above the significance threshold, calculated as the difference between total annual emissions at build out under mitigated conditions and the significance threshold in the EIR air	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		quality analysis, which is 25 tons per year of ozone precursors and 1 ton of PM_{10}, plus a 5 percent administrative fee, to fund one or more emissions reduction projects within the SFBAAB. This one-time fee is intended to fund emissions reduction projects to offset the estimated annual tonnage of operational ozone precursor and PM_{10} emissions under the buildout scenario realized at the time of completion of Phase 3 or after completion of 1.3 million sf of development, whichever comes first. Documentation of payment shall be provided to the ERO. Acceptance of this fee by the BAAQMD shall serve as an acknowledgment and commitment by the BAAQMD to implement one or more emissions reduction project(s) within 1 year of receipt of the mitigation fee to achieve the emission reduction objectives specified above, and provide documentation to the ERO and to the project sponsors describing the project(s) funded by the mitigation fee, including the amount of emissions of ROG, NOx, and PM_{10} reduced (tons per year) within the SFBAAB from the emissions reduction project(s). If there is any remaining unspent portion of the mitigation offset fee following implementation of the emission reduction project(s), the project sponsors shall be entitled to a refund in that amount from the BAAQMD. To qualify under this mitigation measure, the specific emissions retrofit project must result in emission reductions within the SFBAAB that would not otherwise be achieved through compliance with existing regulatory requirements.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
AQ-2: At project build-out, the Proposed Project would result in emissions of criteria air pollutants at levels that would violate an air quality standard, contribute to an existing or projected air quality violation, and result in a cumulatively considerable net increase in criteria air pollutants.	S	Implement **Mitigation Measures M-AQ-1b through M-AQ-1h**, above.	SUM
AQ-3: Construction and operation of the Proposed Project would generate toxic air contaminants, including DPM, which would expose sensitive receptors to substantial pollutant concentrations.	S	Implement **Mitigation Measure M-AQ-1a: Construction Emissions Minimization**, above.	LSM
AQ-4: The Maximum Residential or Maximum Commercial Scenarios would conflict with implementation of the Bay Area 2010 Clean Air Plan.	S	Implement **Mitigation Measure M-AQ-1f and Mitigation Measure M-AQ-1g**, above.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
AQ-5: The Maximum Residential or Maximum Commercial Scenarios would not create objectionable odors that would affect a substantial number of people	LS	None required.	LS
C-AQ-1: The Maximum Residential or Maximum Commercial Scenarios, in combination with past, present, and reasonably foreseeable future development in the project area, would contribute to cumulative regional air quality impacts.	S	Implement **Mitigation Measures M-AQ-1a through M-AQ-1h**, above.	SUM
C-AQ-2: The Maximum Residential or Maximum Commercial Scenarios, in combination with past, present, and reasonably foreseeable future development in the project area, would contribute to cumulative health risk impacts on sensitive receptors.	S	Implement **Mitigation Measures M-AQ-1a and M-AQ-1b**, above.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Greenhouse Gas Emissions			
C-GG-1: The Proposed Project would generate GHG emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	LS	None required.	LS
Wind and Shadow			
WS-1: The phased development of the Proposed Project would temporarily alter wind in a manner that substantially affects public areas.	S	**Mitigation Measure M-WS-1: Identification and Mitigation of Interim Hazardous Wind Impacts** When the circumstances or conditions listed in Table M.WS.1 are present at the time a building Schematic Design is submitted, the requirements described below apply: **Table M.WS.1: Circumstances or Conditions during which Mitigation Measure M-WS-1 Applies** **Subject Parcel Proposed for Construction** / **Circumstance or Condition** / **Related Upwind Parcels** Parcel A / Construction of any new buildings on Parcel A. / NA Parcel B / Construction of any new buildings on Parcel B. / NA	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures			Level of Significance after Mitigation
		Parcel E2	Construction of any new buildings on Parcel E2 over 80 feet in height, prior to any construction of new buildings on approximately 80% of the combined total parcel area of Parcels H1 and G that would be completed by the estimated time of occupancy of the subject building, as estimated on or about the date of the building Schematic Design submittal.	Parcels H1 and G	
		Parcel E3	Construction of any new buildings on Parcel E3 over 80 feet in height, prior to any construction of new buildings on approximately 80% of the combined total parcel area of Parcels E2 and G that would be completed by the estimated time of occupancy of the subject building, as estimated on or about the date of the building Schematic Design submittal.	Parcels E2 and G	
		Parcel F	Construction of any new buildings on Parcel F.	NA	
		Parcel G	Construction of any new buildings on Parcel G.	NA	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures			Level of Significance after Mitigation
		Parcel H1	Construction of any new buildings on Parcel H1 over 80 feet in height, prior to any construction of new buildings on approximately 80% of the combined total parcel area of Parcels E2 and G that would be completed by the estimated time of occupancy of the subject building, as estimated on or about the date of the building Schematic Design submittal.	Parcels E2 and G	
		Parcel H2	Construction of any new buildings on Parcel H2 over 80 feet in height, prior to any construction of new buildings on approximately 80% of the combined total parcel area of Parcels H1, E2, and E3 that would be completed by the estimated time of occupancy of the subject building, as estimated on or about the date of the building Schematic Design submittal.	Parcels H1, E2, and E3	

Source: SWCA.

Requirements

A wind impact analysis shall be required prior to building permit issuance for any proposed new building that is located within the project site and meets the conditions described above. All feasible means (e.g., changes in design, relocating or reorienting certain building(s), sculpting to include podiums and roof terraces, adding architectural canopies or screens, or street furniture) to eliminate hazardous winds, if predicted, shall be implemented. After such design changes

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		and features have been considered, the additional effectiveness of landscaping may also be considered. 1. Screening-level analysis. A qualified wind consultant approved by the Planning Department's Environmental Review Officer (ERO) shall review the proposed building design and conduct a "desktop review" in order to provide a qualitative result determining whether there could be a wind hazard. The screening-level analysis shall have the following steps: For each new building proposed that meets the criteria above, a qualified wind consultant shall review and compare the exposure, massing, and orientation of the proposed building(s) on the subject parcel to the building(s) on the same parcel in the representative massing models of the Proposed Project tested in the wind tunnel as part of this EIR and in any subsequent wind analysis testing required by this mitigation measure. The wind consultant shall identify and compare the potential impacts of the proposed building(s) to those identified in this EIR, subsequent wind testing that may have occurred under this mitigation measure, and to the City's wind hazard criterion. The wind consultant's analysis and evaluation shall consider the proposed building(s) in the context of the "Current Project Baseline," which, at any given time during construction of the Proposed Project, shall be defined as any existing buildings at the site, the as-built designs of all previously-completed structures and the then-current designs of approved but yet unbuilt structures that would be completed by the time of occupancy of the subject building. (a) If the qualified wind consultant concludes that the building design(s) could not create a new wind hazard and could not contribute to a wind hazard identified by prior wind tunnel testing for the EIR and in subsequent wind analysis required by this mitigation measure, no further review would be required. If there could be a new wind hazard, then a quantitative assessment shall be conducted using wind tunnel testing or an equivalent quantitative analysis that produces comparable results to the analysis methodology used in this EIR.	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		(b) If the qualified wind consultant concludes that the building design(s) could create a new wind hazard or could contribute to a wind hazard identified by prior wind tunnel testing conducted for this EIR and in subsequent wind analysis required by this mitigation measure, but in the consultant's professional judgment the building(s) can be modified to reduce such impact to a less-than-significant level, the consultant shall notify the ERO and the building applicant. The consultant's professional judgment may be informed by the use of "desktop" analytical tools, such as computer tools relying on results of prior wind tunnel testing for the Proposed Project and other projects (i.e., "desktop" analysis does not include new wind tunnel testing). The analysis shall include consideration of wind location, duration, and speed of wind. The building applicant may then propose changes or supplements to the design of the proposed building(s) to achieve this result. These changes or supplements may include, but are not limited to, changes in design, building orientation, sculpting to include podiums and roof terraces, and/or the addition of architectural canopies or screens, or street furniture. The effectiveness of landscaping may also be considered. The wind consultant shall then reevaluate the building design(s) with specified changes or supplements. If the wind consultant demonstrates to the satisfaction of the ERO that the modified design and landscaping for the building(s) could not create a new wind hazard or contribute to a wind hazard identified in prior wind tunnel testing conducted for this EIR and in subsequent wind analysis required by this mitigation measure, no further review would be required. (c) If the consultant is unable to demonstrate to the satisfaction of the ERO that no increase in wind hazards would occur, wind tunnel testing or an equivalent method of quantitative evaluation producing results that can be compared to those used in the EIR and in any subsequent wind analysis testing required by this mitigation measure is required. The building(s) shall be wind tunnel tested in the	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		context of a model that represents the Current Project Baseline, as described in Item 1, above. The testing shall include all the test points in the vicinity of a proposed building or group of buildings that were tested in this EIR, as well as all additional points deemed appropriate by the consultant to determine the wind performance for the building(s). Testing shall occur in places identified as important, e.g., building entrances, sidewalks, etc., and there may need to be additional test point locations considered. At the direction and approval of the Planning Department, the "vicinity" shall be determined by the wind consultant, as appropriate for the circumstances, e.g., a starting concept for "vicinity" could be approximately 350 feet around the perimeter of the subject parcel(s), subject to the wind consultant's reducing or increasing this radial distance. The wind tunnel testing shall test the proposed building design(s), as well as the Current Project Baseline, in order to clearly identify those differences that would be due to the proposed new building(s). In the event the wind tunnel testing determines that design of the building(s) would increase the hours of wind hazard or extent of area subject to hazardous winds beyond those identified in prior wind testing conducted for this EIR and in subsequent wind tunnel analysis required by this mitigation measure, the wind consultant shall notify the ERO and the building applicant. The building applicant may then propose changes or supplements to the design of the proposed building(s) to eliminate wind hazards. These changes or supplements may include, but are not limited to, changes in design, building orientation, sculpting building(s) to include podiums and roof terraces, adding architectural canopies or screens, or street furniture. All feasible means (changes in design, relocating or reorienting certain building(s), sculpting to include podiums and roof terraces, the addition of architectural canopies or screens, or street furniture) to eliminate wind hazards, if predicted, shall be implemented to the extent necessary to mitigate the impact. After such design changes and features have been considered, the	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		additional effectiveness of landscaping at the size it is proposed to be installed may also be considered. The wind consultant shall then reevaluate the building design(s) with specified changes or supplements. If the wind consultant demonstrates to the satisfaction of the ERO that the modified design would not create a new wind hazard or contribute to a wind hazard identified in prior wind tunnel testing conducted for this EIR and in subsequent wind analysis required by this mitigation measure, no further review would be required. If the proposed building(s) would result in a wind hazard exceedance, and the only way to eliminate the hazard is to redesign a proposed building, then the building shall be redesigned.	
WS-2: For public open space built on rooftops, the Proposed Project would alter wind in a manner that affects those public open spaces.	S	**Mitigation Measure M-WS-2: Wind Reduction for Rooftop Winds** If the rooftop of building(s) is proposed as public open space and/or a passive or active public recreational area prior to issuance of a building permit for the subject building(s), a qualified wind consultant shall prepare a wind impact and mitigation analysis in the context of the Current Project Baseline regarding the proposed architectural design. All feasible means (such as changing the proposed building mass or design; raising the height of the parapets to at least 8 feet, using a porous material where such material would be effective in reducing wind speeds; using localized wind screens, canopies, trellises, and/or landscaping around seating areas) to eliminate wind hazards shall be implemented as necessary. A significant wind impact would be an increase in the number of hours that the wind hazard criterion is exceeded or an increase in the area subjected to winds exceeding the hazard criterion as compared to existing conditions at the height of the proposed rooftop. The wind consultant shall demonstrate to the satisfaction of the ERO that the building design would not create a new wind hazard or contribute to a wind hazard identified in prior wind testing conducted for this EIR.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
WS-3: At full build-out, the Proposed Project would not alter wind in a manner that substantially affects ground-level public areas.	LS	**Improvement Measure I-WS-3a: Wind Reduction for Public Open Spaces and Pedestrian and Bicycle Areas** For each development phase, a qualified wind consultant should prepare a wind impact and mitigation analysis regarding the proposed design of public open spaces and the surrounding proposed buildings. Feasible means should be considered to improve wind comfort conditions for each public open space, particularly for any public seating areas. These feasible means include horizontal and vertical, partially-porous wind screens (including canopies, trellises, umbrellas, and walls), street furniture, landscaping, and trees. Specifics for particular public open spaces are set forth in Improvement Measures I-WS-3b to I-WS-3f. Any proposed wind-related improvement measure should be consistent with the design standards and guidelines outlined in the *Pier 70 SUD Design for Development*. **Improvement Measure I-WS-3b: Wind Reduction for Waterfront Promenade and Waterfront Terrace** The Waterfront Promenade and Waterfront Terrace would be subject to winds exceeding the pedestrian wind comfort criteria. A qualified wind consultant should prepare written recommendations of feasible means to improve wind comfort conditions in this open space, emphasizing vertical elements, such as wind screens and landscaping. Where necessary and appropriate, wind screens should be strategically placed directly around seating areas. For maximum benefit, wind screens should be at least 6 feet high and made of approximately 20 to 30 percent porous material. Design of any wind screen or landscaping shall be compatible with the Historic District. **Improvement Measure I-WS-3c: Wind Reduction for Slipways Commons** The central and western portions of Slipways Commons would be subject to winds exceeding the pedestrian wind comfort criteria. Street trees should be considered along Maryland Street, particularly on the east side of Maryland Street between Buildings E1 and E2. Vertical elements such as wind screens would help	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		for areas where street trees are not feasible. Where necessary and appropriate, wind screens should be strategically placed to the west of any seating areas. For maximum benefit, wind screens should be at least 6 feet high and made of approximately 20 to 30 percent porous material. Design of any wind screen or landscaping shall be compatible with the Historic District. **Improvement Measure I-WS-3d: Wind Reduction for Building 12 Market Plaza and Market Square** Building 12 Market Plaza and Market Square would be subject to winds exceeding the pedestrian wind comfort criteria. For reducing wind speeds in the public courtyard between Buildings 2 and 12, the inner south and west façades of Building D-1 could be stepped by at least 12 feet to direct downwashing winds above pedestrian level. Alternatively, overhead protection should be used, such as a 12-foot-deep canopy along the inside south and west façades of Building D-1, or localized trellises or umbrellas over seating areas. For reducing wind speeds on the eastern and southern sides of Building 12, street trees should be considered, along Maryland and 22nd streets. Smaller underplantings should be combined with street trees to reduce winds at pedestrian level. Design of any wind screen or landscaping shall be compatible with the Historic District. **Improvement Measure I-WS-3e: Wind Reduction for Irish Hill Playground** The Irish Hill Playground would be subject to winds exceeding the pedestrian wind comfort criteria. For maximum benefit, wind screens should be at least 6 feet high and made of approximately 20 to 30 percent porous material. Design of any wind screen or landscaping shall be compatible with the Historic District. **Improvement Measure I-WS-3f: Wind Reduction for 20th Street Plaza** The 20th Street Plaza would be subject to winds exceeding the pedestrian wind comfort criteria. A qualified wind consultant should prepare written recommendations of feasible means to improve wind comfort conditions in this open space, emphasizing hardscape elements, such as wind screens, canopies, and umbrellas. Where necessary and appropriate, wind screens should be strategically placed to the northwest of any seating area. For maximum benefit, wind screens should be at least 6 feet high and made of approximately 20 to 30 percent porous	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		material. If there would be seating areas directly adjacent to the north façade of the PKN Building, localized canopies or umbrellas should be used. Design of any wind screen or landscaping shall be compatible with the Historic District.	
C-WS-1: The Proposed Project at full build-out, when combined with other cumulative projects, would not alter wind in a manner that substantially affects public areas within the vicinity of the project site.	LS	None required.	LS
WS-4: The Proposed Project would not create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.	LS	None required.	LS
C-WS-2: The Proposed Project, in combination with past, present, and reasonably foreseeable future projects in the project vicinity, would not create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas. The Proposed Project would not make a cumulatively considerable	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
contribution to a significant cumulative shadow impact.			
Recreation			
RE-1: The Proposed Project would increase the use of existing neighborhood and regional parks or other recreational facilities, but not to such an extent that substantial physical deterioration of existing facilities would occur or be accelerated, or such that the construction of new facilities would be required.	LS	None required.	LS
RE-2: Construction of the parks and recreational facilities proposed as part of the Proposed Project would not result in substantial adverse physical environmental impacts beyond those analyzed and disclosed in this EIR.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-RE-1: The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a cumulatively considerable contribution to significant cumulative impacts on recreation.	LS	None required.	LS
Utilities and Service Systems			
UT-1: The City's water service provider would have sufficient water supply available to serve the Proposed Project from existing entitlements and resources, and would not require new or expanded water supply resources or entitlements.	LS	None required.	LS
UT-2: The Proposed Project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
UT-3: The Proposed Project would not exceed wastewater treatment requirements of the Southeast Water Pollution Control Plant.	LS	None required.	LS
UT-4: The Proposed Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Nor would the project result in a determination by the SFPUC that it has inadequate capacity to serve the project's projected demand in addition to its existing commitments.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
UT-5: The Proposed Project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LS	None required.	LS
UT-6: The Proposed Project would be served by a landfill with sufficient capacity to accommodate the Proposed Project's solid waste disposal needs.	LS	None required.	LS
UT-7: The Proposed Project would not fail to comply with Federal, State, and local statutes and regulations related to solid waste.	NI	None required.	NI

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-UT-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not result in significant adverse cumulative utilities and service systems impacts.	LS	None required.	LS
Public Services			
PS-1: The Proposed Project would not result in the need for new or physically altered facilities in order to maintain acceptable service ratios, response times, or other performance objectives for police protection.	LS	None required.	LS
PS-2: The Proposed Project would not result in the need for new or physically altered facilities in order to maintain acceptable response times for fire protection and emergency medical services.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
PS-3: The increase in students associated with implementation of the Proposed Project would not require new or expanded school facilities, the construction of which could result in substantial adverse impacts.	LS	None required.	LS
PS-4: The Proposed Project would not result in an increase in demand for library services that could not be met by existing library facilities.	LS	None required.	LS
C-PS-1: The Proposed Project, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to significant adverse cumulative impacts that would result in a need for construction of new or physically altered facilities in order to maintain acceptable service ratios, response	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
times, or other performance objectives for any public services, including police protection, fire protection and emergency services, schools, and libraries.			
Biological Resources			
BI-1: Construction and operation of the Proposed Project would have a substantial adverse effect either directly or through habitat modifications on migratory birds and/or on bird species identified as special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	S	**Mitigation Measure M-BI-1: Worker Environmental Awareness Program Training** Project-specific Worker Environmental Awareness Program (WEAP) training shall be developed and implemented by a qualified biologist and attended by all project personnel performing demolition or ground-disturbing work prior to beginning demolition or ground-disturbing work on site. The WEAP training shall generally include, but not be limited to, education about the following: a. Applicable State and Federal laws, environmental regulations, project permit conditions, and penalties for non-compliance. b. Special-status plant and animal species with the potential to be encountered on or in the vicinity of the project site during construction. c. Avoidance measures and a protocol for encountering special-status species including a communication chain. d. Preconstruction surveys and biological monitoring requirements associated with each phase of work and at specific locations within the project site (e.g., shoreline work) as biological resources and protection measures will vary depending on where work is occurring within the site, time of year, and construction activity. e. Known sensitive resource areas in the project vicinity that are to be avoided and/or protected as well as approved project work areas, access roads, and staging areas.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		f. Best management practices (BMPs) (e.g., straw wattles or spill kits) and their location around the project site for erosion control and species exclusion, in addition to general housekeeping requirements.	
BI-2: Construction of the Proposed Project would have a substantial adverse effect either directly or through habitat modifications on bats identified as special-status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the United States Fish and Wildlife Service.	S	**Mitigation Measure M-BI-2: Avoidance and Minimization Measures for Bats** A qualified biologist (as defined by CDFW[17]) who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to demolition or building relocation activities to conduct a pre-construction habitat assessment of the project site (focusing on buildings to be demolished or relocated) to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify bat habitat or signs of potentially active bat roosts within the project site (e.g., guano, urine staining, dead bats, etc.). The following measures shall be implemented should potential roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished or relocated under the Proposed Project or in trees adjacent to construction activities that could be trimmed or removed under the Proposed Project: a) In areas identified as potential roosting habitat during the habitat assessment, initial building demolition, relocation, and any tree work (trimming or removal) shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These dates avoid the bat maternity roosting season and period of winter torpor.[18]	LSM

[17] CDFW defines credentials of a "qualified biologist" within permits or authorizations issued for a project. Typical qualifications include a minimum of five years of academic training and professional experience in biological sciences and related resource management activities, and a minimum of two years of experience conducting surveys for each species that may be present within the project area.

[18] Torpor refers to a state of decreased physiological activity with reduced body temperature and metabolic rate.

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		b) Depending on temporal guidance as defined below, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition or relocation, or any tree trimming or removal. c) If active bat roosts or evidence of roosting is identified during pre-construction surveys, the qualified biologist shall determine, if possible, the type of roost and species. A no-disturbance buffer shall be established around roost sites until the qualified biologist determines they are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site. If special-status bat species or maternity or hibernation roosts are detected during these surveys, appropriate species- and roost-specific avoidance and protection measures shall be developed by the qualified biologist in coordination with CDFW. Such measures may include postponing the removal of buildings or structures, establishing exclusionary work buffers while the roost is active (e.g., 100-foot no-disturbance buffer), or other compensatory mitigation. d) The qualified biologist shall be present during building demolition, relocation, or tree work if potential bat roosting habitat or active bat roosts are present. Buildings and trees with active roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit. e) The demolition or relocation of buildings containing or suspected to contain bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions,	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist. f) Trimming or removal of existing trees with potential bat roosting habitat or active (non-maternity or hibernation) bat roost sites shall follow a two-step removal process (which shall occur during the time of year when bats are active, according to a) above, and depending on the type of roost and species present, according to c) above). i. On the first day and under supervision of the qualified biologist, tree branches and limbs not containing cavities or fissures in which bats could roost shall be cut using chainsaws. ii. On the following day and under the supervision of the qualified biologist, the remainder of the tree may be trimmed or removed, either using chainsaws or other equipment (e.g., excavator or backhoe). iii. All felled trees shall remain on the ground for at least 24 hours prior to chipping, off-site removal, or other processing to allow any bats to escape, or be inspected once felled by the qualified biologist to ensure no bats remain within the tree and/or branches.	
BI-3: Construction of the Proposed Project would have a substantial adverse effect, either directly or through habitat modifications, on aquatic species identified as candidate, sensitive, or special-status species in	S	**Mitigation Measure M-BI-3: Pile Driving Noise Reduction for Protection of Fish and Marine Mammals** Prior to the start of reconstruction of the bulkhead in Reach II, the project sponsors shall prepare a detailed Construction Plan that outlines the details of the piling installation approach. This Plan shall be reviewed and approved by the City of San Francisco or other designated City, State, or Federal agency, as determined by the San Francisco Planning Department. The information provided in this plan shall include, but not be limited to, the following:	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
local, regional, or Federal plans, policies, or regulations, or by California Department of Fish and Wildlife, United States Fish and Wildlife Service, or National Oceanic and Atmospheric Administration.		• The type of piling to be used (whether sheet pile or H-pile); • The piling size to be used; • The method of pile installation to be used; • Noise levels for the type of piling to be used and the method of pile driving; • Recalculation of potential underwater noise levels that could be generated during pile driving using methodologies outlined in CalTrans 2009;[19] and • When pile driving is to occur. If the results of the recalculations provided in the detailed Construction Plan for pile driving discussed above indicate that underwater noise levels are less than 183 dB (SEL) for fish at a distance of 33 feet (less than or equal to 10 meters) and 160 dB (RMS) sound pressure level or 120 dB (RMS) re 1 μPa impulse noise level for marine mammals for a distance 1,640 feet (500 meters), then no further measures are required to mitigate underwater noise. If recalculated noise levels are greater than those identified above, then the project sponsors shall develop a sound attenuation reduction and monitoring plan. This plan shall be reviewed and approved by the Planning Department Environmental Review Officer or other City-designated person. This plan shall provide detail on the sound attenuation system, detail methods used to monitor and verify sound levels during pile-driving activities, and all BMPs to be taken to reduce impact hammer pile-driving sound in the marine environment to an intensity level of less than 183 and 160/120 dB (as identified above) at distances of 33 feet (less than or equal to 10 meters) for fish and 1,640 feet (500 meters) for marine mammals. The sound-monitoring results shall be made available to NOAA Fisheries. If, in the case of marine mammals, recalculated noise levels are greater than 160 dB (peak) at less than or equal to 1,640 feet (500 meters), then the project sponsors shall consult with NOAA to determine the need to obtain an Incidental Harassment	

[19] Caltrans, Technical Guidance for Assessment and Mitigation.

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Authorization (IHA) under the MMPA. If an IHA is required by NOAA, an application for an IHA shall be prepared by the project sponsor. The plan shall incorporate as appropriate, but not be limited to, the following BMPs: • Any impact-hammer-installed soldier wall H-pilings or sheet piling shall be conducted in strict accordance with the Long-Term Management Strategy (LTMS) work windows for Pacific herring,[20] during which the presence of Pacific herring in the project site is expected to be minimal unless, where applicable, NOAA Fisheries in their Section 7 consultation with the Corps determines that the potential effect to special-status fish species is less than significant. • If pile installation using impact hammers must occur at times other than the approved LTMS work window for Pacific herring or result in underwater sound levels greater than those identified above, the project sponsors shall consult with both NOAA Fisheries and CDFW on the need to obtain incidental take authorizations to address potential impacts to longfin smelt and green sturgeon associated with reconstruction of the steel sheet pile bulkhead in Reach II, and to implement all requested actions to avoid impacts. • A 1,640-foot (500-meter) safety zone shall be established and maintained around the sound source to the extent such a safety zone is located within in-water areas, for the protection of marine mammals in the event that sound levels are unknown or cannot be adequately predicted. • In-water work activities associated with reconstruction of the steel sheet pile bulkhead in Reach II shall be halted when a marine mammal enters the 1,640-foot (500-meter) safety zone and shall cease until the mammal has been gone from the area for a minimum of 15 minutes.	

[20] U.S. Army Corps of Engineers, Programmatic Essential Fish Habitat (EFH) Assessment for the Long-Term Management Strategy for the Placement of Dredged Material in the San Francisco Bay Region. July 2009.

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• A "soft start" technique shall be used in all pile driving, giving marine mammals an opportunity to vacate the area. • A NOAA Fisheries-approved biological monitor shall conduct daily surveys before and during impact hammer pile driving to inspect the safety zone and adjacent San Francisco Bay waters for marine mammals. The monitor shall be present as specified by NOAA Fisheries during the impact pile-driving phases of construction. • Other BMPs shall be implemented as necessary, such as using bubble curtains or an air barrier, to reduce underwater noise levels to acceptable levels. Alternatively, the project sponsors may consult with NOAA directly and submit evidence to their satisfaction of the Environmental Review Officer of NOAA consultation. In such case, the project sponsors shall comply with NOAA recommendations and/or requirements.	
BI-4: The Proposed Project would have a substantial adverse effect on Federally-protected waters as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means.	S	**Mitigation Measure M-BI-4: Compensation for Fill of Jurisdictional Waters** To offset temporary and/or permanent impacts to jurisdictional waters of San Francisco Bay adjacent to the 28-Acre Site, construction associated with repair or replacement of the Reach II bulkhead shall be conducted as required by regulatory permits (i.e., those issued by the Corps, RWQCB, and BCDC) and in coordination with NMFS as appropriate. If required by regulatory permits, compensatory mitigation shall be provided as necessary, at a minimum ratio of 1:1 for fill beyond that required for normal repair and maintenance of existing structures. Compensation may include on-site or off-site shoreline improvements or intertidal/subtidal habitat enhancements along San Francisco's eastern waterfront through removal of chemically treated wood material (e.g., pilings, decking, etc.) by pulling, cutting, or breaking off piles at least 1 foot below mudline or removal of other unengineered debris (e.g., concrete-filled drums or large pieces of concrete).	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Improvements would be implemented in accordance with NMFS as appropriate. On-site or off-site restoration/enhancement plans, if required, must be prepared by a qualified biologist prior to construction and approved by the permitting agencies prior to beginning construction, repair, or replacement of the Reach II bulkhead. Implementation of restoration/enhancement activities by the permittee shall occur prior to project impacts, whenever possible.	
BI-5: The Proposed Project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	S	Implement **Mitigation Measure M-BI-3: Pile Driving Noise Reduction for Protection of Fish and Marine Mammals,** above.	LSM
BI-6: The Proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and would not have a substantial conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-BI-1: The Proposed Project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would result in a cumulatively considerable contribution to significant biological resources impacts.	S	Implement **Mitigation Measures M-BI-1: Worker Environmental Awareness Program Training, M-BI-2: Avoidance and Minimization Measures for Bats, Mitigation Measure M-BI-3: Pile Driving Noise Reduction for Protection of Fish and Marine Mammals,** and **Mitigation Measure M-BI-4: Compensation for Fill of Jurisdictional Waters**, above.	LSM
Geology and Soils			
GE-1: The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving fault rupture, seismic ground shaking, seismically induced ground failure, or seismically induced landslides.	LS	None required.	LS
GE-2: The Proposed Project would not result in substantial erosion or loss of topsoil.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
GE-3: The project site would not be located on a geologic unit or soil that is unstable, or that could become unstable as a result of the Proposed Project.	S	**Mitigation Measure M-GE-3a: Reduction of Rock Fall Hazards** The project sponsors shall prepare a site-specific geotechnical report(s), subject to review and approval by the Port, that evaluates the design and construction methods proposed for Parcels PKS, C-1, and C-2, the Irish Hill playground, and 21st Street. The investigations shall determine the potential for rock fall hazards. If the potential for rock fall hazards is identified, the site-specific geotechnical investigations shall identify measures to minimize such hazards to be implemented by the project sponsors. Possible measures to reduce the impacts of potential rock fall hazards include, but are not limited to, the following: • Limited regrading to adjust slopes to stable gradient; • Rock fall containment measures such as installation of drape nets, rock fall catchment fences, or diversion dams; and • Site design measures such as implementing setbacks to ensure that buildings and public uses are outside areas that could be subject to damage as a result of rock fall. **Mitigation Measure M-GE-3b: Signage and Restricted Access to Pier 70** Prior to issuance of the first certificate of occupancy under the Proposed Project, the project sponsors shall install a gate or an equivalent measure to prevent access to the existing dilapidated pier at the project site. A sign shall be posted at the potential access point informing the public of potential risks associated with use of the structure and prohibiting public access.	LSM
GE-4: The Proposed Project would not create substantial risks to life or property as a result of locating buildings or other features on expansive or corrosive soils.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
GE-5: The Proposed Project would not substantially change the topography or any unique geologic or physical features of the site.	LS	None required.	LS
GE-6: The Proposed Project would directly or indirectly destroy a unique paleontological resource or site.	S	**Mitigation Measure M-GE-6: Paleontological Resources Monitoring and Mitigation Program** Prior to issuance of a building permit for construction activities that would disturb sedimentary rocks of the Franciscan Complex (based on the site-specific geotechnical investigation or other available information), the project sponsors shall retain the services of a qualified paleontological consultant having expertise in California paleontology to design and implement a Paleontological Resources Monitoring and Mitigation Program (PRMMP). The PRMMP shall specify the timing and specific locations where construction monitoring would be required; emergency discovery procedures; sampling and data recovery procedures; procedures for the preparation, identification, analysis, and curation of fossil specimens and data recovered; preconstruction coordination procedures; and procedures for reporting the results of the monitoring program. The PRMMP shall be consistent with the Society for Vertebrate Paleontology (SVP) Standard Guidelines for the mitigation of construction-related adverse impacts to paleontological resources and the requirements of the designated repository for any fossils collected. During construction, earth-moving activities that have the potential to disturb previously undisturbed native sediment or sedimentary rocks shall be monitored by a qualified paleontological consultant having expertise in California paleontology. Monitoring need not be conducted for construction activities in areas where the ground has been previously disturbed or when construction activities would encounter artificial fill, Young Bay Mud, marsh deposits, or non-sedimentary rocks of the Franciscan Complex.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		If a paleontological resource is discovered, construction activities in an appropriate buffer around the discovery site shall be suspended for a maximum of 4 weeks. At the direction of the Environmental Review Officer (ERO), the suspension of construction can be extended beyond 4 weeks if needed to implement appropriate measures in accordance with the PRMMP, but only if such a suspension is the only feasible means to prevent an adverse impact on the paleontological resource. The paleontological consultant's work shall be conducted at the direction of the City's ERO. Plans and reports prepared by the consultant shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO.	
C-GE-1: The Proposed Project, in combination with past, present, and reasonably foreseeable future projects, would not substantially contribute to cumulative impacts on geology and soils.	LS	None required.	LS
Hydrology and Water Quality			
HY-1: Construction of the Proposed Project would not violate a water quality standard or a waste discharge requirement, or otherwise substantially degrade water quality.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
HY-2: The Proposed Project could violate a water quality standard or waste discharge requirement or otherwise substantially degrade water quality, but runoff from the Proposed Project could exceed the capacity of a storm drain system or provide a substantial source of stormwater pollutants.	S	**Mitigation Measure M-HY-2a: Design and Construction of Proposed Pump Station for Options 1 and 3** The project sponsors shall design the new pump station proposed as part of the Proposed Project to achieve the following performance criteria. • The dry-weather capacity of the new pump station and associated force main shall be sufficient to convey dry-weather wastewater flows within the 20th Street sub-basin, including flows from the existing baseline, the Proposed Project at full build-out, and cumulative project contributions; and • The wet-weather capacity of the new pump station shall be sufficient to ensure that potential wet-weather combined sewer discharges from the 20th Street sub-basin and associated downstream basins do not exceed the long-term average of ten discharges per year specified in the SFPUC Bayside NPDES permit or applicable corresponding permit condition at time of final design. The capacity shall be based on the existing baseline, the Proposed Project at full build-out, and cumulative project contributions, The project sponsors shall coordinate with the SFPUC regarding the design and construction of the pump station. The final design shall be subject to approval by the SFPUC. **Mitigation Measure M-HY-2b: Design and Construction of Proposed Pump Station for Option 2** The project sponsors shall design the new pump station proposed as part of the Proposed Project to achieve the following performance criteria. • The dry-weather capacity of the new pump station and associated force main shall be sufficient to convey dry-weather wastewater flows within the 20th Street sub-basin, including flows from the existing baseline, the Proposed Project at full build-out, and cumulative project contributions;	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		• During wet weather, wastewater flows from the project site shall bypass the wet-weather facilities and be conveyed to the combined sewer system in such a manner that they do not contribute to combined sewer discharges within the 20th Street sub-basin; and • The wet-weather capacity of the new pump station shall be sufficient to ensure that potential wet-weather combined sewer discharges from the 20th Street sub-basin and associated downstream basins do not exceed the long-term average of ten discharges per year specified in the SFPUC Bayside NPDES permit or applicable corresponding permit condition at time of final design. The capacity shall be based on the existing baseline and cumulative project contributions. The project sponsor shall coordinate with the SFPUC regarding the design and construction of the pump station. The final design shall be subject to approval by the SFPUC.	
HY-3: The Proposed Project would not substantially deplete groundwater supplies or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
HY-4: The Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, or flooding on- or off site.	LS	None required.	LS
HY-5: Operation of the Proposed Project would not place housing within a 100-year flood zone or place structures within an existing 100-year flood zone that would impede or redirect flood flows.	LS	None required.	LS
HY-6: Operation of the Proposed Project would not place structures within a future 100-year flood zone that would impede or redirect flood flows.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
HY-7: The Proposed Project would not expose people or structures to substantial risk of loss, injury, or death due to inundation by seiche, tsunami, or mudflow.	LS	None required.	LS
C-HY-1: The Proposed Project, in combination with past, present, and reasonably foreseeable future projects in the site vicinity, would not result in a considerable contribution to cumulative impacts on hydrology and water quality.	LS	None required.	LS
Hazards and Hazardous Materials			
HZ-1: Construction and operation of the Proposed Project would not create a significant hazard through routine transport, use, or disposal of hazardous materials.	LS	None required.	LS
HZ-2: Demolition and renovation of buildings under the Proposed Project would not expose workers and the public to hazardous building	S	**Mitigation Measure M-HZ-2a: Conduct Transformer Survey and Remove PCB Transformers** The project sponsors shall retain a qualified contractor to survey any building and/or structure planned for demolition, renovation, or relocation to identify all electrical transformers in use and in storage. The contractor shall determine the	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
materials including asbestos-containing materials, lead-based paint, bis (2-ethylhexyl) phthalate (DEHP), and mercury, or result in a release of these materials into the environment during construction. However, workers and the public would be exposed to PCBs as a result of the removal of electrical transformers.		PCB content using name plate information, or through sampling if name-plate data do not provide adequate information regarding the PCB content of the dielectric equipment. The project sponsors shall retain a qualified contractor to remove and dispose of all transformers in accordance with the requirements of Title 40 of the Code of Federal Regulations, Section 761.60 (described under the Regulatory Framework) and the Title 22 of the California Code of Regulations, Section 66261.24. The removal shall be completed in advance of any building or structural demolition, renovation, or relocation. **Mitigation Measure M-HZ-2b: Conduct Sampling and Cleanup if Stained Building Materials Are Observed** In the event that leakage is observed in the vicinity of a transformer containing greater than 50 parts per million PCB (determined in accordance with Mitigation Measure H-HZ-2a), or the leakage has resulted in visible staining of the building materials or surrounding surface areas, the project sponsors shall retain a qualified professional to obtain samples of the building materials for the analysis of PCBs in accordance with Part 761 of the Code of Federal Regulations. If PCBs are identified at a concentration of 1 part per million, then the project sponsors shall retain a contractor to clean the surface to a concentration of 1 part per million or less in accordance with Title 40 of the Code of Federal Regulations, Section 761.61(a). The sampling and cleaning shall be completed in advance of any building or structural demolition, renovation, or relocation. **Mitigation Measure M-HZ-2c: Conduct Soil Sampling if Stained Soil is Observed** In the event that leakage is observed in the vicinity of a PCB-containing transformer that has resulted in visible staining of the surrounding soil (determined in accordance with Mitigation Measure M-HZ-2a), the project sponsors shall retain a qualified professional to obtain soil samples for the analysis of PCBs in accordance with Part 761 of the Code of Federal Regulations. If PCBs are identified at a concentration less than the residential Environmental Screening Level of 0.22 milligrams per kilogram, then no further action shall be required. If PCBs are identified at a concentration greater than or equal to the	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		residential Environmental Screening Level of 0.22 milligrams per kilogram, then the project sponsors shall require the contractor to implement the requirements of the Pier 70 RMP, as required by Mitigation Measure M-HZ-6. The sampling and implementation of the Pier 70 RMP requirements shall be completed in advance of any building or structural demolition, renovation, relocation, or subsequent development.	

HZ-3: Project development within the 28-Acre Site and 20th/Illinois Parcel would be conducted on a site included on a government list of hazardous materials sites and could encounter hazardous materials in the soil and groundwater, creating 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.	S	**Mitigation Measure M-HZ-3a: Implement Construction and Maintenance-Related Measures of the Pier 70 Risk Management Plan**
		
		The project sponsors shall provide notice to the RWQCB, DPH, and Port in accordance with the Pier 70 RMP, in advance of ground-disturbing activities that would disturb an area of 1,250 square feet or more of native soil, 50 cubic yards or more of native soil, more than 0.5 acre of soil, or 10,000 square feet or more of durable cover (Pier 70 RMP Sections 4.1, 4.2, and 6.3).
		
		The project sponsors shall also (through their contractor) implement the following measures of the Pier 70 RMP during construction to provide for the protection of worker and public health, including nearby schools and other sensitive receptors, and to ensure appropriate disposition of soil and groundwater removed from the site:
		
		• A project-specific health and safety plan (Pier 70 RMP Section 6.4);
		• Access controls (Pier 70 RMP Section 6.1);
		• Soil management protocols, including those for:
		  o soil movement (Pier 70 RMP Section 6.5.1),
		  o soil stockpile management (Pier 70 RMP Section 6.5.2), and
		  o import of clean soil (including preparation of a project-specific Soil Import Plan) (Pier 70 RMP Section 6.5.3);
		• A dust control plan in accordance with the measures specified by the California Air Resources Board for control of naturally occurring asbestos (Title 17 of California Code of Regulations, Section 93105) and
			LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Article 22B of the San Francisco Health Code and other applicable regulations as well as site-specific measures (Pier 70 RMP Section 6.6); • A project-specific stormwater pollution prevention control plan (Pier 70 RMP Section 6.7); • Off-site soil disposal (Pier 70 RMP Section 6.8); • A project-specific groundwater management plan for temporary dewatering (Pier 70 RMP Section 6.10.1); • Risk management measures to minimize the potential for new utilities to become conduits for the spread of groundwater contamination (Pier 70 RMP Section 6.10.2); • Appropriate design of underground pipelines to prevent the intrusion of groundwater or degradation of pipeline construction materials by chemicals in the soil or groundwater (Pier 70 RMP Section 6.10.3); and • Protocols for unforeseen conditions (Pier 70 RMP Section 6.9). Following completion of construction activities that disturb any durable cover, the integrity of the previously existing durable cover shall be re-established in accordance with Section 6.2 of the Pier 70 RMP and the protocols described in the Operations and Maintenance Plan of the Pier 70 RMP. All plans prepared in accordance with the Pier 70 RMP shall be submitted to the RWQCB, DPH, and/or Port for review and approval in accordance with the notification requirements of the RMP (Pier 70 RMP Section 4.0). **Mitigation Measure M-HZ-3b: Implement Well Protection Requirements of the Pier 70 Risk Management Plan** In accordance with Section 6.11 of the Pier 70 RMP, the project sponsors shall review available information prior to any ground-disturbing activities to identify any monitoring wells within the construction area. The wells shall be appropriately protected during construction. If construction necessitates destruction of an existing well, the destruction shall be conducted in accordance	

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		with California and DPH well abandonment regulations, and must be approved by the RWQCB. The Port shall also be notified of the destruction. If required by the RWQCB, DPH, or the Port, the project sponsor shall reinstall any groundwater monitoring wells that are part of the ongoing groundwater monitoring network.	
HZ-4: Project development within the Hoedown Yard would be conducted on a site included on a government list of hazardous materials sites and could encounter hazardous materials in the soil and groundwater, creating 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.	S	**Mitigation Measure M-HZ-4: Implement Construction-Related Measures of the Hoedown Yard Site Management Plan** In accordance with the notification requirements of the Hoedown Yard SMP (Section 4.2), the project sponsors (through their contractor) shall notify the RWQCB, DPH, and/or Port prior to conducting any intrusive work at the Hoedown Yard. During construction, the contractor shall implement the following measures of the Hoedown Yard SMP to provide for the protection of worker and public health, and to ensure appropriate disposition of soil and groundwater. • A project-specific Health and Safety Plan (Hoedown Yard SMP Section 5): o Dust management measures in accordance with the measures specified by the California Air Resources Board for control of naturally occurring asbestos (Title 17 of California Code of Regulations, Section 93105) and Article 22B of the San Francisco Health Code. The specific measures must address dust control (SMP Section 6.1) and dust monitoring (SMP Section 6.2). • Soil and water management measures, including: o soil handling (Hoedown Yard SMP Section 7.1.1), o stockpile management (Hoedown Yard SMP Section 7.1.2), o on-site reuse of soil (Hoedown Yard SMP Section 7.1.3), o off-site soil disposal (Hoedown Yard SMP Section 7.1.4), o excavation dewatering (Hoedown Yard SMP Section 7.1.5), o stormwater management (Hoedown Yard SMP Section 7.1.6),	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		o site access and security (Hoedown Yard SMP Section 7.1.7), and o unanticipated subsurface conditions (Hoedown Yard SMP Section 7.2).	
HZ-5: Operation of the Proposed Project within the PG&E Responsibility Area would expose residents, site workers, and site visitors to hazardous materials in the soil, creating a significant hazard to the public or the environment.	S	**Mitigation Measure M-HZ-5: Delay Development on Proposed Parcels H1, H2, and E3 Until Remediation of the PG&E Responsibility Area is Complete** The project sponsors shall not start construction of the proposed development or associated infrastructure on proposed Parcels H1, H2, and E3 until PG&E's remedial activities in the PG&E Responsibility Area within and adjacent to these parcels have been completed to the satisfaction of the RWQCB. During subsequent development, the project sponsors shall implement the requirements of the Pier 70 RMP within the PG&E Responsibility Area, as is enforced through the recorded deed restriction.	LSM
HZ-6: Operation of the Proposed Project within the 28-Acre Site and the 20th/Illinois Parcel would expose residents, site workers, and site visitors to hazardous materials in the soil or soil vapors, creating a significant hazard to the public or the environment.	S	**Mitigation Measure M-HZ-6: Additional Risk Evaluations and Vapor Control Measures for Residential Land Uses** The notification submittals required under Mitigation Measure M-HZ-3a shall describe site conditions at the time of development. If residential land uses are proposed at or near locations where soil vapor or groundwater concentrations exceed residential cleanup standards for vapor intrusion (based on information provided in the Pier 70 RMP) , this information shall be included in the notification submittal and the RWQCB and DPH determine whether a risk evaluation is required. If required, the project sponsors or future developer(s) shall conduct a risk evaluation in accordance with the Pier 70 RMP. The risk evaluation shall be based on the soil vapor and groundwater quality presented in the Pier 70 RMP and the proposed building design. The project sponsors shall conduct additional soil vapor or groundwater sampling as needed to support the risk evaluation, subject to the approval of the RWQCB and DPH. If the risk evaluation demonstrates that there would be unacceptable health risks to residential users (i.e., greater than 1×10^{-6} incremental cancer risk or a non-cancer hazard index greater than 1), the project sponsors shall incorporate measures into the building design to minimize or eliminate exposure to soil vapor	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		through the vapor intrusion pathway, subject to review and approval by the RWQCB and DPH. Appropriate vapor intrusion measures include, but are not limited to design of a safe building configuration that would preclude vapor intrusion; installation of a vapor barrier; and/or design and installation of an active vapor monitoring and extraction system. If the risk evaluation demonstrates that vapor intrusion risks would be within acceptable levels (less than 1×10^{-6} incremental cancer risk or a non-cancer hazard index less than 1) under a project-specific development scenario, no additional action shall be required. (For instance, the project sponsors could locate all residential uses above the first floor which, in some cases, could eliminate the potential for residential exposure to organic compounds in soil vapors.)	
HZ-7: Operation of the Proposed Project within the Hoedown Yard would expose residents, site workers, and site visitors to hazardous materials in the soil, creating a significant hazard to the public or the environment.	S	**Mitigation Measure M-HZ-7: Modify Hoedown Yard Site Mitigation Plan** The project sponsors shall conduct a risk evaluation to evaluate health risks to future site occupants, visitors, and maintenance workers under the proposed land use within the Hoedown Yard. The risk evaluation shall be based on the soil, soil vapor, and groundwater quality data provided in the existing SMP and supporting documents and the project sponsors shall conduct additional sampling as needed to support the risk evaluation. Based on the results of the risk evaluation, the project sponsors shall modify the Hoedown Yard SMP to include measures to minimize or eliminate exposure pathways to chemicals in the soil and groundwater, and achieve health-based goals (i.e., an excess cancer risk of 1×10^{-6} and a Hazard Index of 1) applicable to each land use proposed for development within the Hoedown Yard. At a minimum, the modified SMP shall include the following components: • Regulatory-approved cleanup levels for the proposed land uses; • A description of existing conditions, including a comparison of site data to regulatory-approved cleanup levels; • Regulatory oversight responsibilities and notification requirements; • Post-development risk management measures, including management measures for the maintenance of engineering controls (e.g., durable	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		covers, vapor mitigation systems) and site maintenance activities that could encounter contaminated soil; • Monitoring and reporting requirements; and • An operations and maintenance plan, including annual inspection requirements. The risk evaluation and proposed risk management plan shall be submitted to the RWQCB, DPH, and Port for review and approval prior to the start of ground disturbance.	
HZ-8: Operation of the Irish Hill Playground would expose site visitors to naturally occurring asbestos and naturally occurring metals, creating a significant hazard to the public or the environment.	S	**Mitigation Measure M-HZ-8a: Prevent Contact with Serpentinite Bedrock and Fill Materials in Irish Hill Playground** The project sponsors shall ensure that a minimum 2-foot thick durable cover of asbestos-free clean imported fill with a vegetated cover is emplaced above serpentinite bedrock and fill materials in the level portions of Irish Hill Playground. The fill shall meet the soil criteria for clean fill specified in Table 4 of the Pier 70 RMP and included in Appendix F, Hazards and Hazardous Materials, of this EIR. Barriers shall be constructed to preclude direct climbing on the bedrock of the Irish Hill remnant. The design of the durable cover and barriers shall be submitted to the DPH and Port for review and approval prior to construction of the Irish Hill Playground. **Mitigation Measure M-HZ-8b: Restrictions on the Use of Irish Hill Playground** To the extent feasible, the project sponsors shall ensure that the Irish Hill Playground is not operational until ground disturbing activities for construction of the new 21st Street and on the adjacent parcels (PKN, PKS, HDY-1, HDY2, C1, and C2) is completed. If this is not feasible, and Irish Hill Playground is operational prior to construction of the new 21st Street and construction on all adjacent parcels, the playground shall be closed for use when ground-disturbing activities are occurring for the construction of the new 21st Street and on any of the adjacent parcels.	LSM

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
HZ-9: The Proposed Project would not handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Although construction activities would emit diesel particulate matter and naturally occurring asbestos, these emissions would not result in adverse effects on nearby schools.	LS	None required.	LS
HZ-10: The Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving fires, nor would it impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-HZ-1: The Proposed Project, in combination with other past, present or reasonably foreseeable future projects in the project vicinity, would not result in a considerable contribution to significant cumulative impacts related to hazards and hazardous materials.	LS	None required.	LS
Mineral and Energy Resources			
ME-1: The Proposed Project would not have a significant adverse impact on the availability of a known mineral resource and/or a locally important mineral resource recovery site.	NI	None required.	NI
ME-2: The Proposed Project would not have a substantial adverse effect on the use of fuel, water, or energy consumption, and would not encourage activities that could result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
ME-3: The Proposed Project would not result in new or expansion of existing electric or natural gas transmission and/or distribution facilities that would cause significant physical environmental effects.	LS	None required.	LS
C-ME-1: The Proposed Project, in combination with other past, present and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a significant adverse cumulative impact on mineral and energy resources.	LS	None required.	LS

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Agriculture and Forest Resources			
AG-1: The Proposed Project would not convert designated farmland under the Farmland Mapping and Monitoring Program, nor would it conflict with any existing agricultural zoning or a Williamson Act contract, nor would it involve any changes to the environment that would result in the conversion of designated farmland.	NI	None required.	NI
AG-2: The Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, nor would it result in the loss of or conversion of forest land to non-forest uses.	NI	None required.	NI

Table S.1 Continued

Impact	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
C-AG-1: The Proposed Project, in combination with other past, present and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to a significant adverse cumulative impact on agricultural resources or forest land or timberland.	NI	None required.	NI

Source: Turnstone/SWCA

C. SUMMARY OF PROJECT VARIANTS

Four project variants are evaluated in this EIR, and are described in detail in Chapter 6, Variants. These include: a Reduced Off-Haul Variant; a District Energy System; a Wastewater Treatment and Reuse System (WTRS); and an Automated Waste Collection System (AWCS). There is one proposed construction-related variant of the Proposed Project and three proposed variants on infrastructure features of the Proposed Project, all of which focus on sustainability.

For each variant, all other features would be the same as or similar to the Proposed Project. The variants do not involve any change to the mix of land uses, the space allocation of uses, or the residential unit count under the Maximum Residential and Maximum Commercial Scenarios of the Proposed Project. Likewise, the variants would not involve any change to the locations, configurations, or building envelopes of the programmed development under the two scenarios analyzed for the Proposed Project. Physical environmental effects from the project variants would be the same or similar to the Proposed Project. All mitigation measures and improvement measures identified for the Proposed Project would be the same under the project variants.

Reduced Off-Haul Variant

The Reduced Off-Haul Variant is a construction-related variant. It is focused on minimizing the overall volume of excavated soils and the number of off-haul truck trips required for the transport and disposal of excavated soils. The strategy for achieving a reduction in the volume of excavated soils and the resultant off-haul truck trips is three-fold: 1) modify the preliminary grading plan developed for the Proposed Project to raise the base elevation for a portion of the 28-Acre Site; 2) eliminate the proposed 15-foot-deep below-grade basement levels at selected locations on the 28-Acre Site and extend the footprint of one proposed 15-foot-deep below-grade basement level; and 3) eliminate a portion of one of the two below-grade basement levels on Parcel C1. The combination of the proposed increase to the base elevation on a portion of the 28-Acre Site and the modifications to the below-grade basement level parking program would result in an approximately 56 percent reduction in the volume of excavated soils that would need to be transported off site (from approximately 340,000 cubic yards under the Proposed Project to approximately 150,000 cubic yards).

District Energy System Variant

Under the District Energy System Variant, building space heating and space cooling systems within the project site would be linked together via an underground shared energy distribution and exchange loop. This variant would include a single central plant with boilers and chillers to regulate the water temperature circulating in the network of subsurface pipes and laterals leading

to all buildings on the 28-Acre-Site. The central plant would be located in the basement of a building on Parcel C1, which is located at the corner of new Louisiana and 21st streets. Development of Parcel C1 could be an above grade parking structure, a residential building, or commercial building, all with two below-grade basement levels. Up to five 15- to 20-foot-tall cooling towers would be located on the roof or would be located adjacent to the building and would obviate the need, under the Proposed Project, for a mechanical cooling tower located on the roof of each building.

Each building on the project site would have heat pumps and a point-of-connection to the energy distribution loop tied to the water loop to provide space heating, hot water, and cooling to more efficiently meet building thermal demands. Buildings that require heat would remove heat from the loop. Buildings that require cooling would reject that heat by pumping heated water into the loop, thereby enhancing the efficiency of each building's heating, ventilation, and air conditioning system. To maintain the loop at a desired temperature, the central plant would use natural gas-fired boilers to increase heat and cooling towers to reject heat.

Wastewater Treatment and Reuse System Variant

Under the WTRS Variant, wastewater in the form of blackwater, graywater, and rainwater would be collected from all newly constructed buildings, treated, and reused for toilet and urinal flushing, irrigation, and cooling towers. The WTRS Variant is an infrastructure-related variant. The variant is different from the Proposed Project because it would include a centralized facility (as opposed to the capture of graywater, and rain water, and its reuse within the individual building). Unlike the Proposed Project, this variant also assumes blackwater (wastewater from toilets, urinals, dishwashers, kitchen sinks, and utility sinks containing feces, urine, other bodily wastes, or other biological wastes) would be collected and treated along with the graywater, and rainwater, that would be captured under the Proposed Project.

The WTRS Variant would consist of a single treatment facility to be located in an existing building (Building 108) or in a new building (approximately 20,000 square feet and 35 feet tall) on the BAE Systems Ship Repair site north of 20th Street opposite the proposed commercial office uses on Parcels A and B.

Automated Waste Collection System Variant

An AWCS Variant is under consideration by the project sponsor because it has the potential to operate more efficiently and reduce the number of trash collection truck trips and the associated noise. The automated waste collection system would be designed to accept recyclables, compostables, and trash at separate loading stations in buildings and in public areas. These waste streams would then be transported through a subsurface pipeline system to a central waste

collection facility. In order to minimize the potential for odors from organic decomposition and other odorous waste, the subsurface pipeline system would be designed to be under negative pressure (i.e., vacuum towards the central waste collection facility) and activated carbon filters would be used to eliminate odors at the system exhaust.

Under the AWCS Variant, residents, workers, and visitors would deposit recyclables, compostables, and trash in designated receptacles both within and outside of buildings. Once deposited, the material would be temporarily stored at the loading point. A pneumatic system would direct the solid waste through the subsurface pipeline system to the central waste collection facility. The central waste collection facility would be up to 10,000 square feet and up to 35 feet in height. It would be located outside of the project site on land north of Parcels A and B on the BAE Systems Ship Repair site (a surface parking lot) and would likely be constructed as part of the first phase of development

D. SUMMARY OF PROJECT ALTERNATIVES

Three alternatives are evaluated in this EIR: the No Project Alternative; the Code Compliant Alternative; and the 2010 Pier 70 Master Plan Alternative. The three alternatives are described in detail in Chapter 7, Alternatives. Table S.2: Comparison of Project and Alternative Impacts, on pp. S.118-S.122, shows a comparison of the potential environmental impacts that may result from the alternatives to those of the Proposed Project.

No Project Alternative

CEQA Guidelines Section 15126.6(e) requires that, among the project alternatives, a "no project" alternative be evaluated. 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." As noted in CEQA Guidelines Section 15126.6, an EIR on "a development project on identifiable property," typically analyzes a no project alternative, i.e., "the circumstance under which the project does not proceed. Such a discussion would compare the environmental effects of the property remaining in its existing state against environmental effects that would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed."

DESCRIPTION

Under the No Project Alternative, existing conditions at the Pier 70 project site would not change. Under this alternative, there would be no exchange of land under the Public Trust Exchange Agreement. The 35-acre project site that contains approximately 351,800 gsf of mostly vacant buildings and facilities, most of which are unoccupied, would be retained in its current condition with the current level of maintenance. Current uses on the site, all of which are on short-term leases or temporary, would continue. The Port would continue to renew the existing short-term leases on the project site; no tenant relocation plan would be proposed. While it is likely that the Port and/or developers could develop portions or all the 28-Acre Site and Illinois Parcels over a period of time, such development is speculative and therefore not analyzed under the No Project Alternative.

Under the No Project Alternative, there would be no amendment to the Planning Code, no rezoning of the entire 35-acre project site, and no adoption of a SUD enabling development controls. None of the approximately 3,422,265 gsf or 801,400 gsf of new buildings and improvements to existing structures on the 28-Acre Site and the Illinois Parcels, respectively, proposed as part of the Proposed Project would be constructed or improved. No new proposed residential, commercial, RALI, or open space uses would be constructed on the project site under this alternative. No affordable residential units complying with the City's Affordable Inclusionary Housing Ordinance would be built. There would be no demolition or rehabilitation of contributing historic architectural resources in the Union Iron Works (UIW) Historic District on the project site under the No Project Alternative; no traffic or street and circulation improvements; no infrastructure or utilities improvements; no new 20th Street pump station; no grading or stabilization improvements; and no shoreline protection or sea level rise adaptation strategies on the project site.

Code Compliant Alternative

DESCRIPTION

The purpose of the Code Compliant Alternative is to evaluate a development scheme that would meet applicable provisions of the Planning Code and would not require any Planning Code amendments.

Under this alternative, there would be no establishment of an SUD; the project site would remain in M-2 and P Zoning Districts. The Code Compliant Alternative would include approximately 1,881,360 gsf of development, about 45 percent less than under the Proposed Project overall. This alternative would include 590 residential units totaling 519,950 gsf, 1,162,260 gsf of commercial (office) use, 156,780 gsf of retail use, and 42,370 gsf of arts/light-industrial uses.

The Code Compliant Alternative would provide 150 on-street vehicle parking spaces and 985 off-street spaces located on several surface parking lots on the site. Under this alternative, 5.76 acres of public open space would be constructed, including promenade and terrace areas along the waterfront, an Irish Hill playground area, and a plaza and market square around Building 12. Unlike the Proposed Project, this alternative does not include the Maximum Residential Scenario and the Maximum Commercial Scenario as optional development scenarios.

Under this alternative, the project site would remain within the existing Height and Bulk Districts of 65-X and 40-X. No voter approval would be required pursuant to Proposition B under the Code Compliant Alternative because no changes to the height districts would be proposed.

Like the Proposed Project, this alternative would include a Design for Development document comparable to that of the Proposed Project, but would apply specifically to the height districts, use program, and site plan for streets, configuration of parcels, and open spaces under this alternative. As with the Proposed Project, the Design for Development under this alternative would establish standards and guidelines for the rehabilitation of historic buildings, buildable zones for infill construction, and would contain project-wide as well as location-specific massing and architecture requirements that would govern the design of infill construction within the project site to ensure architectural compatibility with historic buildings within the UIW Historic District.

Under the Code Compliant Alternative, 237,800 gsf located in Buildings 2, 12, and 21 on the project site would be retained and rehabilitated in accordance with Secretary of the Interior's Standards. As with the Proposed Project, the northern spur of the Irish Hill remnant would be removed.to allow for the construction of 21st Street. Also, as under the Proposed Project, Building 21 would be relocated about 75 feet to the southeast. The remaining seven structures on the project site (Buildings 11, 15, 16, 19, 25, 32, and 66), containing 123,200 gsf, would be demolished.

Similar to the Proposed Project, the Code Compliant Alternative includes construction of transportation and circulation improvements. Under this alternative, the following transportation and circulation improvements would be implemented: construction of new 21st Street, reconstruction of 20th and 22nd streets, and construction of new Louisiana and Maryland streets. All new and reconstructed streets would be built with sidewalks. As under the Proposed Project, the Code Compliant Alternative would include the same bicycle circulation improvements (Bay Trail extension, Class II and Class III facilities on internal streets, and a bikeshare location). The Code Compliant Alternative would include same Transportation Demand Management (TDM) program as the Proposed Project, with exception of those items that pertain only to residential tenants. A TDM program would include the following: establishment of a Transportation Management Agency (TMA) that employs an on-site transit coordinator, operation of a shuttle

system, maintenance of a TMA website with real-time transit information, distribution of educational documents, coordination of ride-matching services, enrollment in Emergency Ride Home program, employment of a structured parking strategy, unbundled residential and commercial parking, provision of car-share parking spaces, metering of on-street parking, and parking wayfinding signage across the site.

Under this alternative, new and upgraded utilities and infrastructure would be constructed, including a new 20th Street pump station. A combined sewer and stormwater system would be built, similar to Option 1 under the Proposed Project, but it would have slightly different alignments due to different building and roadway siting and locations. Unlike the Proposed Project, this alternative does not include variants. The Code Compliant Alternative would further some of the project sponsors' objectives.

The Code Compliant Alternative includes about 47,962 cubic yards of off-haul of excavated materials and about 8,900 cubic yards of clean fill import. This alternative includes construction of an engineered berm along the eastern property boundary with an approximately 3:1 slope and a maximum height of approximately 4 feet to address projected sea level rise flooding risks. Shoreline protection improvements, including placing rip-rap along the water's edge, under this alternative would be similar to those under the Proposed Project. Like the Proposed Project, implementation of this alternative would take place over a period of 11 years, similar to the Proposed Project, and in several phases (up to five for the Proposed Project, up to four for this alternative).

Under this alternative, an exchange of land under the Public Trust Exchange Agreement would occur under in order to clarify the Public Trust status of portions of Pier 70 that would free some portions of the project site from the Public Trust while committing others to the Public Trust.

2010 Pier 70 Master Plan Alternative

DESCRIPTION

The purpose of the 2010 Pier 70 Master Plan Alternative is to evaluate the environmental impacts of a development scheme for the project site that conforms with the Port of San Francisco's *2010 Pier 70 Preferred Master Plan*. See "Port of San Francisco Pier 70 Preferred Master Plan" in Chapter 3, Plans and Policies, on pp. 3.7-3.9. The 2010 Pier 70 Master Plan Alternative includes approximately 31.4 acres, and would not include development on the 3.6-acre Hoedown Yard; this parcel would continue to be owned and operated by PG&E as a storage and maintenance yard.

Similar to the Proposed Project, this Alternative would amend the *General Plan* and Planning Code, adding a new Pier 70 SUD, which would establish land use and zoning controls for the 31.4-acre site. (See Figure 7.3: 2010 Pier 70 Master Plan Alternative – Land Use Plan in Chapter 7, Alternatives, p. 7.58.) The existing Zoning Map would be amended to show changes from the current Zoning District (M-2 and P) to the proposed SUD zoning. Under this alternative, as under the Proposed Project, the existing Height and Bulk Districts of 65-X and 40-X would be increased to 90-X, except for a 100-foot-wide portion adjacent to the shoreline that would remain at 40 feet, but would become public open space under this alternative. (See Figure 7.4: 2010 Pier 70 Master Plan Alternative – Maximum Height Plan in Chapter 7, Alternatives, p. 7.60.)

The 2010 Pier 70 Master Plan Alternative would include approximately 2,153,330 gsf of development, about 50 percent less square footage than under the Proposed Project. (See Figure 7.3.) This alternative would include 195 residential units totaling 160,440 gsf, 1,698,780 gsf of commercial (office) use, 188,610 gsf of retail use, and 105,500 gsf of arts/light-industrial uses. The 2010 Pier 70 Master Plan Alternative would provide 405 on-street vehicle parking spaces and 2,120 off-street spaces located on several surface parking lots on the site. Under this alternative, 8.07 acres of open space would be constructed, including promenade and terrace areas along the waterfront, a plaza and market square around Buildings 2 and 12, an open space block along the northern portion of the 28-Acre Site, and a plaza on 20th Street around Building 3A. Unlike the Proposed Project, this alternative does not include the Maximum Residential Scenario and the Maximum Commercial Scenario as optional development scenarios.

Like the Proposed Project, this alternative would include a Design for Development document comparable to that of the Proposed Project, but would apply specifically to the height districts, use program, and site plan for streets, configuration of parcels, and open spaces under this alternative. As with the Proposed Project, the Design for Development under this alternative would establish standards and guidelines for the rehabilitation of historic buildings, buildable zones for infill construction, and would contain project-wide as well as location-specific massing and architecture requirements that would govern the design of infill construction within the project site to ensure architectural compatibility with historic buildings within the UIW Historic District.

Under the 2010 Pier 70 Master Plan Alternative, a total of 293,228 gsf of existing buildings would be retained and rehabilitated in accordance with the Secretary of the Interior's Standards. Buildings 2, 12, and 19 on the project site would be retained and rehabilitated in their current location, and Building 21 would be relocated just to the south of the Historic Core boundary, at the intersection of Louisiana and 21st streets within the project site. The remaining six structures on the project site (Buildings 11, 15, 16, 25, 32, and 66), containing about 858,572 gsf, would be demolished. As with the Proposed Project, the northern spur of the Irish Hill remnant would be

removed to allow for the construction of 21st Street. Similar to the Proposed Project, the 2010 Pier 70 Master Plan Alternative includes construction of transportation and circulation improvements. Under this alternative, the following transportation and circulation improvements would be implemented: construction of new 21st Street, reconstruction of 20th and 22nd streets, and construction of new Louisiana and Maryland streets. All new and reconstructed streets would be built with sidewalks. The 2010 Pier 70 Master Plan Alternative would include the same bicycle circulation improvements (Bay Trail extension, Class II and Class III facilities on internal streets, and a bikeshare location) as the Proposed Project. The 2010 Pier 70 Master Plan Alternative would include the same TDM program as the Proposed Project, with exception of those items that pertain only to residential tenants. The TDM program would include establishment of a TMA that employs an on-site transit coordinator, operation of a shuttle system, maintenance of a TMA website with real-time transit information, distribution of educational documents, coordination of ride-matching services, enrollment in Emergency Ride Home program, employment of a district parking strategy, unbundled residential and commercial parking, provision of car-share parking spaces, metering of on-street parking, and parking wayfinding signage across the site.

Under this alternative, new and upgraded utilities and infrastructure, and a new 20th Street pump station, would be constructed. A combined sewer and stormwater system would be built, similar to Option 1 under the Proposed Project, but with slightly different alignments due to different building and roadway siting and locations. Unlike the Proposed Project, this alternative does not include variants. The 2010 Pier 70 Master Plan Alternative would further some of the project sponsors' objectives.

The 2010 Pier 70 Master Plan Alternative includes about 47,962 cubic yards of off-haul of excavated materials and about 8,900 cubic yards of clean fill import. It also includes construction of an engineered berm along the eastern property boundary with an approximately 3:1 slope and a maximum height of approximately 4 feet to address projected sea level rise flooding risks. Shoreline protection improvements under this alternative, including placement of new rip-rap along the water's edge, would be similar to those under the Proposed Project. Like the Proposed Project, implementation of this alternative would take place over a period of 11 years and in several phases (up to five for the Proposed Project, up to four for this alternative). Similar to the Proposed Project, an exchange of land under the Public Trust Exchange Agreement would occur under the 2010 Pier 70 Master Plan Alternative in order to clarify the Public Trust status portions of Pier 70, which would free some portions of the project site from the Public Trust while committing others to the Public Trust.

Table S.2: Comparison of Proposed Project to Alternatives and Summary of their Significant and Unavoidable Impacts

	Proposed Project – Maximum Residential Scenario	Proposed Project – Maximum Commercial Scenario	No Project Alternative	Code Compliant Alternative	2010 Pier 70 Master Plan Alternative
Legend: NI = No Impact; LS = Less than Significant; S = Significant; SU = Significant and unavoidable; SUM = Significant and unavoidable impact with mitigation; NA = Not Applicable					
Characteristics of Proposed Project and Alternatives					
Zoning/Height Limits	SUD/65-X, 90-X, 40-X	SUD/65-X, 90-X, 40-X	M-2/65-X, 40-X	M-2 and P/65-X, 40-X	SUD/90-X
Existing buildings (gsf)	351,800	351,800	351,800	351,800	351,800
Existing buildings to be retained (gsf)	237,800	237,800	351,800	237,800	293,228
Residential (gsf)	2,630,000	1,430,000	0	519,950	160,440
No. of units	3,025	1,645	0	590	195
Commercial (gsf)	1,102,250	2,262,350	0	1,162,260	1,698,780
RALI (gsf)	479,980	486,950	0	199,150	294,110
Retail	269,795	275,075	0	156,780	188,610
Restaurant	67,375	68,765	0	0	0
Arts/Light-Industrial	143,110	143,110	0	42,370	105,500
Total (gsf)	**4,212,230**	**4,179,300**	**351,800**	**1,881,360**	**2,153,330**
Total Parking (spaces)	3,656	3,781	323	1,135	2,525
Off-street	3,371	3,496	171	985	2,120
On-street	285	285	152	150	405
Open Space	9 acres	9 acres	0	5.76 acres	8.07 acres
Grading (cy)					
Export	340,000	340,000	0	47,962	47,962

Table S.2 Continued

	Proposed Project – Maximum Residential Scenario	Proposed Project – Maximum Commercial Scenario	No Project Alternative	Code Compliant Alternative	2010 Pier 70 Master Plan Alternative
Import	20,000	20,000	0	8,900	8,900
Ability to meet Project sponsors Objectives?*	Yes	Yes	No	Some	Some
Summary of Significant and Unavoidable Impacts of Proposed Project and Alternatives					
Transportation					
TR-5: The Proposed Project would cause one individual Muni route to exceed 85 percent capacity utilization in the a.m. and p.m. peak hours in both the inbound and outbound directions.	SUM	SUM	NI	Similar to but less than the Proposed Project (SUM)	Similar to but less than the Proposed Project (SUM)
TR-12: The Proposed Project's loading demand during the peak loading hour would not be adequately accommodated by proposed on-site/off-street loading supply or in proposed on-street loading zones, which may create hazardous conditions or significant delays for transit, bicycles, or pedestrians.	SUM	SUM	NI	Similar to but less than the Proposed Project (SUM)	Similar to but less than the Proposed Project (SUM)
C-TR-4: The Proposed Project would contribute considerably to significant cumulative transit impacts on the 48 Quintara/24th Street and 22 Fillmore bus routes.	SUM	SUM	NI	Similar to but less than the Proposed Project (SUM)	Similar to but less than the Proposed Project (SUM)

Table S.2 Continued

	Proposed Project – Maximum Residential Scenario	Proposed Project – Maximum Commercial Scenario	No Project Alternative	Code Compliant Alternative	2010 Pier 70 Master Plan Alternative
Noise and Vibration					
NO-2: Construction of the Proposed Project would cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	SUM	SUM	NI	Similar to but less than the Proposed Project (SUM)	Similar to but less than the Proposed Project (SUM)
NO-5: Operation of the Proposed Project would cause substantial permanent increases in ambient noise levels along some roadway segments in the project site vicinity.	SUM	SUM	NI	Similar to but less than the Proposed Project (SU)	Similar to but less than the Proposed Project (SU)
C-NO-2: Operation of the Proposed Project, in combination with other cumulative development would cause a substantial permanent increase in ambient noise levels in the project vicinity.	SUM	SUM	NI	Less than the Proposed Project (LS)	Less than the Proposed Project (LS)

Table S.2 Continued

	Proposed Project – Maximum Residential Scenario	Proposed Project – Maximum Commercial Scenario	No Project Alternative	Code Compliant Alternative	2010 Pier 70 Master Plan Alternative
Air Quality					
AQ-1: Construction of the Proposed Project would generate fugitive dust and criteria air pollutants, which would violate an air quality standard, contribute substantially to an existing or projected air quality violation, and result in a cumulatively considerable net increase in criteria air pollutants.	SUM	SUM	NI	Similar to but less than the Proposed Project (SUM)	Similar to but less than the Proposed Project (SUM)
AQ-2: At project build-out, the Proposed Project would result in emissions of criteria air pollutants at levels that would violate an air quality standard, contribute to an existing or projected air quality violation, and result in a cumulatively considerable net increase in criteria air pollutants.	SUM	SUM	NI	Similar to but less than the Proposed Project (SUM)	Similar to but less than the Proposed Project (SUM)
C-AQ-1: The Maximum Residential or Maximum Commercial scenarios, in combination with past, present, and reasonably foreseeable future development in the project area would contribute to cumulative regional air quality impacts.	SUM	SUM	NI	Similar to but less than the Proposed Project (SU)	Similar to but less than the Proposed Project (SU)

Source: Forest City 2016, SWCA 2016.

E. ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The EIR is required to identify the environmentally superior alternative that has the fewest significant environmental impacts from among the other alternatives evaluated. The Proposed Project would result in significant and unavoidable impacts related to transportation (transit), noise, and air quality.

The Code Compliant Alternative is the environmentally superior alternative. Due to the substantially lower number of residential units and the decrease in the amount of commercial and RALI space to be constructed and occupied under the Code Compliant Alternative, that Alternative would lessen (but not avoid) the significant adverse impacts identified for the Proposed Project related to the topics of transportation, noise, and air quality.

Additionally, the Code Compliant Alternative would also lessen impacts of the Proposed Project that were found to be less than significant, or less than significant with mitigation, related to the topics of Land Use, Population and Housing, Cultural Resources (Archeological and Historic Architectural), Greenhouse Gas Emissions, Wind, Shadow, Recreation, Utilities and Service Systems, Public Services, Geology and Soils, Hazards and Hazardous Materials, and Mineral and Energy Resources. (There are no Agricultural Resources within the project site.)

The Code Compliant Alternative would partially meet the objectives of the Proposed Project. Like the Proposed Project, it would retain, rehabilitate, and reuse a former industrial complex that would continue to be a part of an historic district. It would provide public open spaces and waterfront access, commercial and retail space, and would contribute market-rate and affordable units toward meeting San Francisco's regional housing needs. However, it would provide substantially less public open space, market-rate and affordable residential units, and commercial and retail space than the Proposed Project. This alternative would not elevate building parcels, nor would it include a financing strategy to enable the project to adapt to future, increased levels of sea level rise. This alternative would not construct a high-quality, public-private development project that could attract sources of public investment, equity, and debt financing to fund site and infrastructure costs, and ongoing maintenance, and produce a market rate return investment that allows the Port to further its Public Trust mandate and mission.

F. AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

The Planning Department published an NOP on May 6, 2015, announcing its intent to prepare and distribute an EIR (the NOP is included in this EIR as Appendix A). The public review period began on May 6, 2015, and ended on June 5, 2015. During the NOP public review period, five

comment letters were submitted to the Planning Department by public agencies and other interested parties. On May 28, 2015, a public scoping meeting was held and four speakers contributed comments. A Notice of Preparation Public Comments Summary Report was prepared.[21]

Comments raised the following issues:

- Plans and Policies: Comments raised issues concerning the need for the EIR to evaluate conflicts between the Proposed Project and the goals of the *Central Waterfront Area Plan*.
- Land Use and Land Use Planning: A comment noted that the EIR should evaluate physical land use impacts from the Proposed Project and other past, present, and reasonably foreseeable projects. Also, a commenter noted that land use conflicts may arise from rezoning the Illinois Parcels.
- Cultural Resources: Comments raised issues concerning impacts of the Proposed Project on the historic and existing industrial land uses of the area.
- Transportation and Circulation: Comments raised issues concerning the Proposed Project's connectivity with the rest of San Francisco, particularly by way of 20th and 22nd streets; traffic and pedestrian safety impacts, specifically at the Illinois Parcels; traffic conflicts between the Proposed Project and the trucking route along Illinois Street, as well as noise, air quality, and pedestrian safety impacts created by trucks; the Transportation Impact Study prepared for the EIR; a TDM Plan that would reduce vehicle trips; mitigation measures to be included in the EIR; transportation impact fees; and consistency with the Waterfront Transportation Assessment.
- Noise: A comment asserted that the EIR should evaluate the noise impacts from nearby industrial uses (e.g., BAE Systems Ship Repair facility, PG&E Potrero Substation, and American Industrial Center) on future residents and employees.
- Air Quality: A comment asserted that the EIR should evaluate the air quality and odor impacts from the nearby industrial uses on future residents and employees.
- Hazards and Hazardous Materials: Comments raised concerns about serpentine soils, potential soil/groundwater contamination from underground tanks, and contaminated soil from past industrial uses on the project site and the risks to future residents and employees. One comment recommended that a full environmental remediation of the project site be considered, in accordance with Proposition D.
- Recreation: A comment stated that the EIR should consider the Bay Area Water Trail, and that storage, access, and landing areas remain available for non-motorized small watercraft (e.g., kayaks and canoes) who wish to use San Francisco Bay.
- Utilities: Comments raised issues concerning the need for the EIR to include City of San Francisco Ordinances regarding irrigation, use of non-potable water during construction, and water efficiency; stormwater management requirements and system configuration; the proposed recycled water system; updates to the Water Supply Assessment; and the

[21] *Pier 70 Mixed-Use District EIR NOP Public Scoping Summary*, September 16, 2015.

design of proposed utility systems, including the water distribution, wastewater, stormwater, and sewer/storm drain systems.

- Cumulative Impacts: A comment noted several projects that should be considered in the cumulative analysis, including the adjacent PG&E site (potential for redevelopment), water taxis, a second BART tunnel, and any other miscellaneous projects in the adjacent Dogpatch neighborhood.
- Alternatives: Comments suggested two alternatives to be considered in the EIR: a Reduced Parking Alternative and a Maximum Housing Alternative.
- General: A comment stated that the EIR should incorporate factual, direct statements as opposed to vague terminology.

Comments expressing support for the Proposed Project or opposition to it will be considered independent of the environmental review process by City decision-makers, as part of their decision to approve, modify, or disapprove the Proposed Project.