

Agreement to Implement Mitigation Monitoring and Reporting Program

Record No.: 2019-023037ENV
 Project Title: Waterfront Plan
 Block/Lot: Multiple Piers and Seawall Lots

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The table below indicates when compliance with each mitigation measure must occur. Some mitigation measures span multiple phases. Substantive descriptions of each mitigation measure’s requirements are provided on the following pages in the Mitigation Monitoring and Reporting Program.

Adopted Mitigation Measure	Period of Compliance			Compliance with Mitigation Measure Completed?
	Prior to the Start of Construction*	During Construction**	Post-construction or Operational	
Mitigation Measure M-CR-1a: New Locations for Contributing Auxiliary Water Supply System Element to Preserve Historic District Character	X	X		
Mitigation Measure M-CR-1b: Best Practices and Construction Monitoring Program for Historic Resources	X	X		
Mitigation Measure M-CR-2a: Procedures for Accidental Discovery of Archeological Resources	X	X		
Mitigation Measure M-CR-2b: Archeological Monitoring Program	X	X		
Mitigation Measure M-CR-2c: Archeological Testing Program	X	X		
Mitigation Measure M-CR-2d: Treatment of Submerged and Deeply Buried Resources	X	X		
Mitigation Measure M-TCR-1: Project-Specific Tribal Cultural Resources Consultation	X			
Mitigation Measure M-TR-6: Driveway and Loading Operations Plan (DLOP)	X			
Mitigation Measure M-C-TR-4: Implement Measures to Reduce Transit Delay	X			
Mitigation Measure M-NO-1: Construction Noise Control	X	X		
Mitigation Measure M-NO-2a: Protection of Adjacent Buildings/Structures and Vibration Monitoring during Construction	X	X		
Mitigation Measure M-NO-2b: Protection of Vibration-Sensitive Equipment during Construction	X	X		
Mitigation Measure M-NO-3: Noise Analysis and Attenuation	X			

Adopted Mitigation Measure	Period of Compliance			Compliance with Mitigation Measure Completed?
	Prior to the Start of Construction*	During Construction**	Post-construction or Operational	
Mitigation Measure M-AQ-3a: Clean Construction Equipment	X	X		
Mitigation Measure M-AQ-3b: Super-Compliant VOC Architectural Coatings during Construction	X	X		
Mitigation Measure M-AQ-4a: Educate Residential and Commercial Tenants Concerning Low-VOC Consumer Products			X	
Mitigation Measure M-AQ-4b: Reduce Operational Emissions			X	
Mitigation Measure M-AQ-4c: Best Available Control Technology for Projects with Diesel Generators and Fire Pumps	X			
Mitigation Measure M-AQ-4d: Electric Vehicle Charging	X			
Mitigation Measure M-AQ-5a: Design Land Use Buffers around Active Loading Docks	X			
Mitigation Measure M-AQ-5b: Reduce Exposure to Toxic Air Contaminants	X			
Mitigation Measure M-AQ-5c: Implement a Truck Route Plan	X			
Mitigation Measure M-WI-1a: Wind Analysis and Minimization Measures for Subsequent Projects	X			
Mitigation Measure M-WI-1b: Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way	X			
Mitigation Measure M-BI-1a: Worker Environmental Awareness Program Training	X			
Mitigation Measure M-BI-1b: Special-Status Plant Species Surveys	X	X		
Mitigation Measure M-BI-2a: Nesting Bird Protection Measures	X	X		
Mitigation Measure M-BI-2b: Avoidance and Minimization Measures for Bats	X	X		
Mitigation Measure M-BI-3: Fish and Marine Mammal Protection during Pile Driving	X	X		
Mitigation Measure M-BI-4: Avoidance of Pickleweed Mat Sensitive Natural Community	X	X		
Mitigation Measure M-BI-6: Avoidance of Impacts on Wetlands and Waters	X	X		
Mitigation Measure M-GE-6a: Unanticipated Discovery of Paleontological Resources during Construction	X	X		
Mitigation Measure M-GE-6b: Paleontological Resource Monitoring Plan during Construction	X	X		
Mitigation Measure M-HY-1: Water Quality Best Management Practices for In-Water Work	X	X		

NOTES:

* Prior to any ground disturbing activities at the project site.

** Construction is broadly defined to include any physical activities associated with construction of a development project including, but not limited to: site preparation, clearing, demolition, excavation, shoring, foundation installation, and building construction.

Mitigation Monitoring and Reporting Program

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
MITIGATION MEASURES AGREED TO BY PROJECT SPONSOR				
CULTURAL RESOURCES				
<p>Mitigation Measure M-CR-1a: New Locations for Contributing Auxiliary Water Supply System Element to Preserve Historic District Character.</p> <p>Where a streetscape or street network improvement proposed under the Waterfront Plan would require moving an Auxiliary Water Supply System (AWSS) hydrant, the project sponsor at the direction of the San Francisco Planning Department and SF Port staff shall conduct additional study to determine if it contributes to the historic significance of the AWSS. If the element is determined to be a contributing feature of the AWSS, the project sponsor shall work with the San Francisco Planning Department’s preservation staff and SF Port staff along with San Francisco Fire Department, San Francisco Public Utilities Commission, and San Francisco Public Works as needed to determine a location where the contributing AWSS hydrant could be reinstalled or replaced in-kind to preserve the historic relationships and functionality that are character-defining features of the AWSS. Generally, hydrants shall be reinstalled or replaced in-kind near the corner or the intersection from where they were removed. Any hydrant found not to contribute to the significance of the AWSS could be removed, relocated, or replaced without diminishing the historic integrity of the district. Furthermore, the project sponsor in coordination with the San Francisco Planning Department, the San Francisco Port, the San Francisco Fire Department, San Francisco Public Utilities Commission, and San Francisco Public Works as needed, will protect existing AWSS facilities remaining in place during implementation of streetscape and street network improvements under the Waterfront Plan.</p>	Project sponsor in consultation with a qualified professional	Prior to construction activities when specific streetscape or street network improvements are known, and during construction	Project sponsor shall conduct and submit additional studies to the planning department Preservation Staff, Port staff (and San Francisco Fire Department, San Francisco Public Utilities Commission, and San Francisco Public Works as needed) to determine reinstallation or replacement in-kind location(s).	Considered completed upon reinstallation or replacement in-kind of the hydrant(s) and protection of existing AWSS facilities remaining in place

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<p>Mitigation Measure M-CR-1b: Best Practices and Construction Monitoring Program for Historic Resources. The project sponsor of a development project using heavy-duty construction equipment onsite or directly adjacent to an historic resource, as determined by department preservation staff or listed in historic inventory maintained by the Port and department preservation staff, shall incorporate into contract specifications a requirement that the general and sub-contractor(s) use all feasible means to protect and avoid damage to onsite and directly adjacent historic resources as identified by the planning department, including, but not necessarily limited to, staging of equipment and materials so as to avoid direct damage, maintaining a buffer zone when possible between heavy equipment and historic resources, and, when applicable, covering the roof of adjacent structures to avoid damage from falling objects. Specifications shall also stipulate that any damage incurred to historic resources as a result of construction activities shall be immediately reported to the ERO. Prior to the start of construction activities, the project sponsor shall submit to the planning department preservation staff for review and approval, a list of measures to be included in contract specifications to avoid damage to historic resources.</p> <p>If damage to a historic resource occurs during construction, the project sponsor shall hire a qualified professional who meets the standards for history, architectural history, or architecture (as appropriate), as set forth by the Secretary of the Interior’s Professional Qualification Standards (36 CFR, Part 61). Damage incurred to the historic resource shall be repaired to match pre-construction conditions per the Secretary of the Interior’s Standards for the Treatment of Historic Properties in consultation with the qualified professional and planning department preservation staff. If directed by planning department preservation staff, the project sponsor shall engage a qualified preservation professional to undertake a monitoring program to ensure that best practices are being followed. If monitoring is required, the qualified preservation professional shall prepare a monitoring plan to direct the monitoring program that shall be reviewed and approved by planning department preservation staff.</p>	Project sponsor in consultation with a professional who meets the Secretary of the Interior’s Professional Qualification Standards	Prior to issuance of construction permits and during construction	Project sponsor shall submit list of measures to be included in contract specifications to planning department preservation staff.	Considered complete upon approval of list of measures by planning department preservation staff
	Project sponsor in consultation with a professional who meets the Secretary of the Interior’s Professional Qualification Standards	Implement best practices and construction monitoring program during construction	Project sponsor shall repair damage in consultation with qualified professional and planning department preservation staff.	Considered complete upon approval by planning department preservation staff that project sponsor has fulfilled all provisions of monitoring program and/or that all damage has been repaired

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<p>Mitigation Measure M-CR-2a: Procedures for Accidental Discovery of Archeological Resources. The following mitigation measure shall be implemented for any projects for which the preliminary archeological review conducted by qualified San Francisco Planning Department archeological staff identifies the potential for significant archeological impacts.</p> <p>All plans and reports prepared by the qualified archeologist (hereinafter, "project archeologist"), as specified herein and in the subsequent measures, 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.</p> <p><i>ALERT Sheet.</i> The project sponsor shall distribute the Planning Department archeological resource "ALERT" sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils-disturbing activities within the project site. Prior to any soils-disturbing activities being undertaken, each contractor is responsible for ensuring that the "ALERT" sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) confirming that all field personnel involved in soil-disturbing activities have received copies of the Alert Sheet.</p> <p><i>Procedures upon Discovery of a Potential Archeological Resource.</i> The following measures shall be implemented in the event of an archeological discovery during project soil-disturbing activities:</p> <ul style="list-style-type: none"> • <i>Discovery Stop Work and ERO Notification.</i> Should any indication of an archeological resource be encountered during any soils-disturbing activity of the project, the project sponsor shall immediately notify the ERO and shall immediately suspend any soils-disturbing activities in the vicinity of the discovery and protect the find in place until the ERO has determined what additional measures should be undertaken, as detailed below. • <i>Project Archeologist.</i> If the ERO determines that the discovery may represent a significant archeological resource, the Port/project sponsor 	Project sponsor	Prior to and during soils-disturbing activities	Project sponsor shall distribute Alert sheet and shall submit a signed affidavit confirming the distribution to the ERO.	Considered complete upon ERO receiving signed affidavit
	Project sponsor and archeological consultant at the direction of the ERO	Upon accidental discovery	In the event of accidental discovery, the project sponsor shall suspend soils-disturbing activities and notify the ERO. The sponsor shall retain a qualified archeological consultant at the direction of the ERO. The archeological consultant shall	If preservation in place is feasible, complete when approved ARPP is implemented. Considered complete when archeological consultant completes additional measures as directed by the ERO as warranted

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<p>shall retain the services of a project archeologist; that is, one who meets the Secretary of the Interior’s Professional Qualification Standards,¹ and who has demonstrable experience, as applicable based on the resource type discovered or suspected, in the geoarcheological identification of submerged Native American archeological deposits and/or in the identification and treatment of 19th century archeological resources, including maritime resources as applicable, to examine and preliminary evaluate the significance and historic integrity of the resource.</p> <p>The project sponsor shall ensure that the project archeologist or designee is empowered, for the remainder of soil disturbing project activity, to halt soil disturbing activity in the vicinity of potential archeological finds, and that work shall remain halted until the discovery has been assessed and a treatment determination made, as detailed below.</p> <ul style="list-style-type: none"> • <i>Resource Evaluation and Treatment Determination.</i> The project archeologist shall examine and appropriately document the discovered resource and make a recommendation to the ERO as to what further actions, if any, are warranted. Based on this information, the ERO may require the project sponsor to implement specific treatment measures to address impacts to the resource. Treatment measures might include preservation in situ of the archeological resource (the preferred mitigation; see below); an archeological monitoring program; an archeological testing program; archeological data recovery; and/or an archeological interpretation program, as detailed below. If an archeological interpretive, monitoring, and/or testing program are required, these shall be consistent with the Environmental Planning Division guidelines for such programs and shall be implemented immediately in accordance with the archeological monitoring and testing protocols set forth in Mitigation Measures M-CR-2b, Archeological Monitoring; M-CR-2c, Archeological Testing; and/or M- 			<p>identify and evaluate the archeological resources and recommend actions for review and approval by the ERO. The archeological consultant shall undertake additional treatment if needed.</p>	

¹ 36 SFR 61: The minimum professional qualifications in Archeology are a graduate degree in archeology, anthropology, or closely related field plus: • At least one year of full-time professional experience or equivalent specialized training in archeological research, administration or management; • At least four months of supervised field and analytical experience in general North American archeology; and • Demonstrated ability to carry research to completion. In addition to these minimum qualifications, a professional in prehistoric archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the prehistoric period. A professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period.

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<p>CR-2d, Submerged or Deeply Buried Resources, as detailed in the Waterfront Plan EIR MMRP. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions. In addition, the ERO shall notify any tribal representatives who responded to the project tribal cultural resources notification and requested to be notified of the discovery of Native American archeological resources and to coordinate on the treatment of archeological and tribal cultural resources.</p> <ul style="list-style-type: none"> • <i>Archeological Site Records.</i> At the conclusion of assessment, the project archeologist shall prepare an archeological site record or primary record (DPR 523 series) for each resource evaluated as significant or potentially significant. In addition, a primary record shall be prepared for any Native American isolate. Each such record shall be accompanied by a map and GIS location file. Records shall be submitted to the department for review as attachments to the archeological resources report (see below) and once approved by the ERO, to the Northwest Information Center. • <i>Submerged Paleosols.</i> Should a submerged paleosol be identified the project archeologist shall extract and process samples for dating, flotation for paleobotanical analysis, and other applicable special analyses pertinent to identification of possible cultural soils and for environmental reconstruction, irrespective of whether cultural material is present. • <i>Preservation in Place Consideration.</i> Should a significant archeological resource be discovered during construction or during archeological testing or monitoring, preservation in place is the preferred treatment option. The ERO shall consult with the project sponsor and, for Native American archeological resources, with the tribal representative(s), if requested, to consider (1) the feasibility of permanently preserving the resource in place and (2) whether preservation in place would be effective in preserving both the archeological values and (if applicable) the tribal values represented. If based on this consultation the ERO determines that preservation in place would be both feasible and effective, based on this consultation, then the project archeologist, in consultation with the tribal representative, if a Native American 				

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<p>archeological resource, shall prepare a Cultural Resources Preservation Plan (CRPP). For Native American archeological resources, the CRPP shall explicitly take into consideration the cultural significance of the tribal cultural resource to the tribes. Preservation options may include measures such as design of the project layout to place open space over the resource location; foundation design to avoid the use of pilings or deep excavations in the sensitive area; a plan to expose and conserve the resource and include it in an on-site interpretive exhibit; and/or establishment of a permanent preservation easement. The project archeologist shall submit a draft CRPP to the department and the tribes for review and approval, and the Port/project sponsor shall ensure that the approved plan is implemented during and after construction. If, based on this consultation, the ERO determines that preservation in place is infeasible, archeological data recovery and public interpretation of the resource shall be carried out, as detailed below. The ERO in consultation with the project archeologist shall also determine if additional treatment is warranted, which may include additional testing and/or construction monitoring.</p> <ul style="list-style-type: none"> • <i>Coordination with Descendant Communities.</i> On discovery of an archeological site associated with descendant Native Americans, Chinese, or other potentially interested descendant group, the project archeologist shall contact an appropriate representative of the descendant group and the ERO. The representative of the descendant group shall be offered the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site and data recovered from the site, and, if applicable, any interpretative treatment of the site. The project archeologist shall provide a copy of the Archeological Resources Report (ARR) to the representative of the descendant group. • <i>Compensation.</i> Tribal representatives or other descendant community representatives for archeological resources or tribal cultural resources, who participate in the project, shall be compensated for time invested in the preparation or review of plans, documents, artwork, etc., as well as for archeological monitoring undertaken in fulfillment of the requirements of this mitigation measure, similarly to other consultants 	<p>The archeological consultant, project sponsor and project contractor at the direction of the ERO in consultation with descendant community</p>	<p>During archeological treatment of resource associated with descendant community</p>	<p>Consultation with ERO on identified descendant group. Descendant group provides recommendations, offered opportunity to monitor, and is given a copy of the ARR.</p>	<p>Considered complete upon implementation of measures agreed upon during consultation</p>

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<p>and experts employed for subsequent projects under the Waterfront Plan. The ERO, Port/project sponsor and project archeologist, as appropriate, shall work with the tribal representative or other descendant community representatives to identify the appropriate scope of consultation work.</p> <p><i>Archeological Data Recovery Program.</i> The project archeologist shall prepare an Archeological Data Recovery Plan (ADRP) if all three of the following apply: (1) a potentially significant resource is discovered, (2) preservation in place is not feasible, and (3) the ERO determines that archeological data recovery is warranted. When the ERO makes such a determination, the project archeological consultant, project sponsor, ERO and, for tribal cultural archeological resources, the tribal representative, if requested, shall consult on the scope of the data recovery program. The project archeologist shall prepare a draft ADRP and submit it to the ERO for review and approval. If the time needed for preparation and review of a comprehensive ADRP would result in a significant construction delay, the scope of data recovery may instead be agreed upon in consultation between the project archeologist and the ERO and documented by the project archeologist in a memo to the ERO. The ADRP/memo shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP/memo will identify what scientific/historic research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historic property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resource that would not otherwise be disturbed by construction if nondestructive methods are practical.</p> <p>If archeological data recovery is required, the archeological data recovery program 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 may be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-</p>	<p>ERO, archeological consultant, project sponsor, and tribal representative (if requested)</p>	<p>After determination by ERO that an archeological data recovery program is required</p>	<p>Archeological consultant shall prepare an ADRP in consultation with ERO.</p>	<p>Considered complete upon implementation of ADRP approved by ERO</p>

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<p>significant level potential effects on a significant archeological resource as defined in CEQA Guidelines section 15064.5(a) and (c).</p> <p>The ADRP shall include the following elements:</p> <ul style="list-style-type: none"> • Field Methods and Procedures: Descriptions of proposed field strategies, procedures, and operations. • Cataloguing and Laboratory Analysis: Description of selected cataloguing system and artifact analysis procedures. • Discard and Deaccession Policy: Description of and rationale for field and post-field discard and deaccession policies. • 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. • Public Interpretation: Description of potential types of interpretive products and locations of interpretive exhibits based on consultation with project sponsor • 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. <p>The project archeologist shall implement the archeological data recovery program upon approval of the ADRP/memo by the ERO.</p> <p><i>Coordination of Archeological Data Recovery Investigations.</i> In cases in which the same resource has been or is being affected by another project for which data recovery has been conducted, is in progress, or is planned, the following measures shall be implemented to maximize the scientific and interpretive value of the data recovered from both archeological investigations:</p> <ul style="list-style-type: none"> • In cases where neither investigation has not yet begun, both archeological consultants and the ERO shall consult on coordinating and collaboration on archeological research design, data recovery methods, analytical methods, reporting, curation and interpretation to ensure consistent data recovery and treatment of the resource. 				

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<ul style="list-style-type: none"> In cases where archeological data recovery investigation is already under way or has been completed for a prior project, the archeological consultant for the subsequent project shall consult with the prior archeological consultant, if available; review prior treatment plans, findings and reporting; and inspect and assess existing archeological collections/inventories from the site prior to preparation of the archeological treatment plan for the subsequent discovery, and shall incorporate prior findings in the final report of the subsequent investigation. The objectives of this coordination and review of prior methods and findings will be to identify refined research questions; determine appropriate data recovery methods and analyses; assess new findings relative to prior research findings; and integrate prior findings into subsequent reporting and interpretation. <p><i>Treatment of Human Remains and Funerary Objects.</i> If human remains or suspected human remains are encountered during construction, the contractor and project sponsor shall ensure that ground-disturbing work within 50 feet of the remains is halted immediately and shall arrange for the protection in place of the remains until appropriate treatment and disposition have been agreed upon and implemented in accordance with this section. The treatment of any human remains and funerary objects discovered during any soils disturbing activity shall comply with applicable state laws, including Health and Safety Code section 7050.5 and Public Resources Code section 5097.98. Upon determining that the remains are human, the project archeologist shall immediately notify the Medical Examiner of the City and County of San Francisco of the find. The archeologist shall also immediately notify the ERO and the project sponsor of the find. In the event of the Medical Examiner’s determination that the human remains are Native American in origin, the Medical Examiner will notify the California State Native American Heritage Commission (NAHC) within 24 hours. The NAHC will immediately appoint and notify a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site.</p> <p>If the remains cannot be permanently preserved in place, the Port shall consult with the MLD and may consult with the project archeologist, project sponsor and the ERO on recovery of the remains and any scientific</p>	Project sponsor/ archeological consultant in consultation with the ERO, Medical Examiner, NAHC, and MLD as warranted	Discovery of human remains	Project archeologist or project sponsor shall notify ERO and Medical Examiner, who will contact NAHC as warranted.	Considered complete on finding by ERO that all State laws regarding human remains/burial objects have been adhered to, consultation with MLD is completed as warranted, that sufficient opportunity has been provided to the archeological consultant for any scientific/historical analysis of remains/funerary objects specified in the Agreement, and the agreed-upon disposition of the remains has occurred

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<p>treatment alternatives. The landowner shall then make all reasonable efforts to develop a Burial Agreement (Agreement) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). Per Public Resources Code section 5097.98(c)(1), the Agreement shall address, as applicable and to the degree consistent with the wishes of the MLD, the appropriate excavation, removal, recordation, scientific analysis, custodianship prior to reinterment or curation, and final disposition of the human remains and funerary objects. If the MLD agrees to scientific analyses of the remains and/or funerary objects, the archeological consultant shall retain possession of the remains and funerary objects until completion of any such analyses, after which the remains and funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>Both parties are expected to make a concerted and good faith effort to arrive at a Burial Agreement. However, if the Port and the MLD are unable to reach an Agreement on scientific treatment of the remains and/or funerary objects, the ERO, in consultation with the Port shall ensure that the remains and/or funerary objects are stored securely and respectfully until they can be reinterred on the project site, with appropriate dignity, in a location not subject to further or future subsurface disturbance, in accordance with the provisions of State law.</p> <p>Treatment of historic-period human remains and/or funerary objects discovered during any soil-disturbing activity shall be in accordance with protocols laid out in the project archeological treatment document, and other relevant agreements established between the project sponsor, Medical Examiner and the ERO. The project archeologist shall retain custody of the remains and associated materials while any scientific study scoped in the treatment document is conducted and the remains shall then be curated or respectfully reinterred by arrangement on a case-by case-basis.</p> <p><i>Cultural Resources Public Interpretation Plan and Land Acknowledgement.</i> If a significant archeological resource is identified, the project archeologist shall prepare a Cultural Resources Public Interpretation Plan (CRPIP). The CRPIP shall describe the interpretive product(s), locations or distribution of interpretive materials or displays, the proposed content and materials,</p>	Archeological/interpretation consultant at the direction of the ERO will prepare CRPIP. Measure laid	Following completion of treatment, analysis, and interpretation of by	Archeological consultant shall submit the CRPIP to ERO for review and approval.	CRPIP is complete on review and approval of ERO; interpretive program is complete on notification to ERO from

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<p>the producers or artists of the displays or installation, and a long-term maintenance program.</p> <p>If the resource to be interpreted is a tribal cultural resource, the department shall notify Native American tribal representatives that public interpretation is being planned. The CRPIP shall be prepared in consultation with and developed with the participation, if requested by a tribe, of Native American tribal representatives, and the interpretive materials shall include an acknowledgement that the project is located upon traditional Ohlone lands. For interpretation of a tribal cultural resource, the interpretive program may include a combination of artwork, preferably by local Native American artists, educational panels or other informational displays, a plaque, or other interpretative elements including digital products that address local Native people's experience and the layers of history. As feasible, and where landscaping is proposed, the interpretive effort may include the use and the interpretation of native and traditional plants incorporated into the proposed landscaping.</p> <p>The project archeological consultant shall submit the CRPIP and drafts of any interpretive materials that are subsequently prepared to the ERO for review and approval. The project sponsor shall ensure that the CRPIP is implemented prior to occupancy of the project.</p> <p><i>Archeological Resources Report.</i> If significance resources are encountered, the project archeologist shall submit a confidential draft Archeological Resources Report (ARR) to the ERO that evaluates the California Register significance of any discovered archeological resource, describes the archeological and historic research methods employed in the archeological program(s) undertaken and the results and interpretation of analyses, and discusses curation arrangements.</p> <p>Once approved by the ERO, the project archeologist shall distribute the approved ARR as follows: copies that meet current information center requirements at the time the report is completed (presently, an electronic copy of the report and of each resources record in pdf format and, if available, GIS shapefiles of the project site and of the boundaries and locations of any recorded resources) to the California Archeological Site Survey Northwest Information Center (NWIC), and a copy of the transmittal of the approved ARR to the NWIC to the ERO; one bound hardcopy of the ARR, along with digital files that include an unlocked, searchable PDF</p>	<p>out in CRPIP are implemented by sponsor and consultant. Native American representative (if requested)</p> <p>Archeological consultant at the direction of the ERO</p>	<p>archeological consultant</p> <p>Following completion of treatment by archeological consultant as determined by the ERO</p>	<p>Monitoring/Reporting Responsibility</p> <p>Submittal of draft ARR to ERO for review and approval. Distribution of the approved ARR by the archeological consultant.</p>	<p>the project sponsor that program has been implemented</p> <p>Complete on certification to ERO that copies of the approved ARR have been distributed</p>

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<p>version of the ARR, GIS shapefiles of the site and feature locations, 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, via USB or other stable storage device, to the department environmental planning division of the planning department; and, if a descendant group was consulted, a digital or hard copy of the ARR to the descendant group, depending on their preference.</p> <p><i>Curation.</i> If archeological data recovery is undertaken, the project archeologist and the project sponsor shall ensure that any significant archeological collections and paleoenvironmental samples of future research value shall be permanently curated at an established curatorial facility. The facility shall be selected in consultation with the ERO. Upon submittal of the collection for curation the Port or project sponsor or archeologist shall provide a copy of the signed curatorial agreement to the ERO.</p>	Project archeologist prepares collection for curation and Port or project sponsor pays for curation costs	Upon acceptance by the ERO of the final report	Upon submittal of the collection for curation the sponsor or archaeologist shall provide a copy of the signed curatorial agreement to the ERO.	Considered complete upon acceptance of the collection by the curatorial facility
<p>Mitigation Measure M-CR-2b: Archeological Monitoring Program. If required based on the outcome of preliminary archeological review conducted by qualified San Francisco Planning Department archeological staff, the project sponsor shall retain the services of a project archeologist (hereinafter ‘project archeologist), to develop and implement an archeological monitoring program and to address any archeological discoveries, as detailed below, to avoid and mitigate any potential adverse effect from the proposed action on significant archeological resources found during construction.</p> <p><i>Qualified Archeologist.</i> A qualified archeologist (hereinafter, “project archeologist”) is defined as one who meets the Secretary of the Interior’s Professional Qualification Standards,² and who has demonstrable experience, as applicable based on the resource type discovered or suspected, in the geoarcheological identification of submerged Native American archeological deposits and/or in the identification and</p>	Project sponsor, qualified archeologist and construction contractor at the direction of the ERO	Prior to issuance of construction permits and throughout the construction period	Project Sponsor shall retain archeological consultant to undertake archeological monitoring program in consultation with ERO.	Complete when Project Sponsor retains qualified archeological consultant

² 36 SFR 61: The minimum professional qualifications in Archeology are a graduate degree in archeology, anthropology, or closely related field plus: • At least one year of full-time professional experience or equivalent specialized training in archeological research, administration or management; • At least four months of supervised field and analytical experience in general North American archeology; and • Demonstrated ability to carry research to completion. In addition to these minimum qualifications, a professional in prehistoric archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the prehistoric period. A professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period.

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>treatment of 19th century archeological resources, including maritime resources as applicable.</p> <p><i>Construction Crew Archeological Awareness.</i> Prior to any soils-disturbing activities being undertaken, the Port shall ensure that the project archeologist conducts a brief on-site archeological awareness training. Training shall include a description of the types of resources that might be encountered and how they might be recognized, and requirements and procedures for work stoppage, resource protection and notification in the event of a potential archeological discovery. The project archeologist also shall coordinate with the project sponsor to ensure that all field personnel involved in soil disturbing activities, including machine operators, field crew, pile drivers, supervisory personnel, etc., have received an “Alert” wallet card that summarizes stop work requirements and provides necessary contact information for the project archeologist, project sponsor and the ERO. The project archeologist shall repeat the training at intervals during construction, as determined necessary by the ERO, including when new construction personnel start work and prior to periods of soil disturbing work when the project archeologist will not be on site. Should any indication of an archeological resource be encountered during any soils-disturbing activity of the project in the absence of the project archeologist, the project sponsor shall immediately notify the project archeologist, and shall immediately suspend any soils-disturbing activities in the vicinity of the discovery until the project archeologist has inspected the find and, in consultation with the ERO as needed, has determined what additional measures should be undertaken.</p> <p><i>Tribal Cultural Resources Sensitivity Training.</i> In addition to and concurrently with the archeological awareness training, for sites at which the ERO has determined that there is the potential for the discovery of Native American archeological resources, and if requested by a tribe pursuant to the department’s tribal cultural resources notification process, the Port shall ensure that a Native American representative is afforded the opportunity to provide a Native American cultural resources sensitivity training to all construction personnel.</p> <p><i>General Specifications.</i> The archeological consultant shall develop and undertake an archeological monitoring program as specified herein. In</p>	<p>Project sponsor, qualified archeologist, and construction contractor</p>	<p>Prior to soils-disturbing activities</p>	<p>Planning department, project sponsor</p>	<p>Considered complete upon end of ground disturbing activities</p>
	<p>Project sponsor, qualified archeologist, construction contractor, and Native American representative</p>	<p>Prior to soils-disturbing activities</p>	<p>Planning department, project sponsor</p>	<p>Considered complete upon the end sensitivity training program and end of ground-disturbing activities</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>addition, the consultant shall be available to conduct an archeological testing and/or data recovery program if required to address archeological discoveries or the assessed potential for archeological discoveries, pursuant to this measure.</p> <p>The project archeologist’s work shall be conducted in accordance with this measure at the direction of the ERO. All plans and reports prepared by the project archeologist 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.</p> <p>The project sponsor shall ensure that the project archeologist or designee is empowered to halt soil disturbing activity in the vicinity of a potential archeological find and that work shall remain halted until the discovery has been assessed and a treatment determination made, as detailed below.</p> <p>Archeological testing and/or data recovery programs required to address archeological discoveries, pursuant to this measure, could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines section 15064.5(a)(c).</p> <p><i>Archeological Monitoring Program.</i> Based on the results of information provided in the preliminary archeological review and additional historic research as needed, the project archeologist shall consult with the ERO reasonably prior to the commencement of any project-related soils disturbing activities to determine what soil-disturbing project activities shall be archeologically monitored, and at what intensity, based on the specifics of anticipated soil disturbance for project construction, past development history, and the assessed risk these activities pose to undiscovered archeological resources and their depositional context. The archeological monitoring program shall be set forth in an Archeological Monitoring Plan (AMP), as detailed below.</p> <p>The project archeologist or delegee (“Archeological Monitor”) shall be present on the project site according to a schedule agreed upon by the project archeologist and the ERO until the ERO has, in consultation with the project archeologist, determined that project construction activities</p>	<p>The project sponsor and archeological consultant at the direction of the ERO</p>	<p>Prior to issuance of construction permits and throughout the construction period</p>	<p>Consultation with ERO by archeological consultant on scope of AMP.</p>	<p>Considered complete after consultation with and approval by ERO of AMP</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>could have no effects on significant archeological deposits. The archeological monitor(s) shall prepare a daily monitoring log documenting activities and locations monitored, soil disturbance depth, stratigraphy and findings.</p> <p>The project sponsor shall authorize the archeological monitor to stop soil disturbing construction activity temporarily in the vicinity of a suspected find, to document the resource, collect samples as needed, and assess its significance. The project sponsor shall ensure that the find is protected in place in accordance with the archeologist's direction, and that it remains protected until the archeologist, after consultation with the ERO, notifies the sponsor that assessment and any subsequent mitigation are complete. The sponsor shall also ensure that the construction foreperson or other on-site delegee, is aware of the stop work and protection requirements.</p> <p>In the event of a discovery of a potentially significant archeological resources during monitoring or construction, the project archeologist shall conduct preliminary testing of the discovery, including the collection of soil samples and artifactual/ ecofactual material, as needed to assess potential significance and integrity. Once this initial assessment has been made, the project archeologist shall consult with the ERO on the results of the assessment. If the resource is assessed as potentially significant, the Port/ project sponsor shall ensure that soil disturbance remains halted at the discovery location until appropriate treatment has been determined in consultation with the ERO and implemented, as detailed below.</p> <p><i>Archeological Monitoring Plan.</i> The archeological monitoring plan, minimally, shall include the following provisions:</p> <ul style="list-style-type: none"> • Project description: Description of all anticipated soil disturbing activities, with locations and depths of disturbance. These may include foundation and utility demolition, hazardous soils remediation, site grading, shoring excavations, piles or soil improvements, and foundation, elevator, car stacker, utility and landscaping excavations. Project plans and profiles shall be included as needed to illustrate the locations of anticipated soil disturbance. • Site-specific environmental and cultural context: Pre-contact and historic environmental and cultural setting of the project site as pertinent to potential Native American use and historic period development; any available information pertaining to subsequent soil 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>disturbance as pertains to potential survival of archeological resources, strata in and depths at which they might be found. As appropriate based on the scale and scope of the project, the AMP should include maps (e.g., USCS 1869; Sanborn fire insurance maps) that depict the historic and environmental setting and changes in the project site, as a basis for predicting resource types that might be encountered and their potential locations. An overlay of the project site on the City's Native American archeological sensitivity model mapping should be included, as should the locations of all known archeological sites within ¼ mile of the project site.</p> <ul style="list-style-type: none"> • Analysis of anticipated resources or resource types that might be encountered and at what locations and depths, based on known resources in the vicinity, the site's predevelopment setting and development history, and the anticipated depth and extent of project soil disturbances. • Proposed scope of archeological monitoring, including soil-disturbing activities/ disturbance depths to be monitored. • Synopsis of discovery procedures, ERO and Native American consultation requirements upon making a discovery; burial treatment procedures; and reporting and curation requirements, consistent with the other specifications of this measure. <p><i>Resource Evaluation and Treatment Determination.</i> If an archeological deposit or feature is encountered during construction, the archeological monitor shall redirect soil disturbing demolition/ excavation/ piledriving/ construction crews and heavy equipment activity in the vicinity away from the find. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the project sponsor shall ensure that pile driving is halted until an appropriate evaluation of the resource has been made.</p> <p>The project archeologist shall document the find, and make a reasonable effort to assess its identity, integrity, and significance of the encountered archeological deposit through, sampling or testing as needed. The project sponsor shall make provisions to ensure that the project archeologist can safely enter the excavation, if feasible.</p>	<p>Archeological consultant, project sponsor and project contractor at the direction of the ERO</p>	<p>Monitoring of soils disturbing activities</p>	<p>Archeological consultant to monitor soils disturbing activities specified in AMP and immediately notify the ERO of any encountered archeological resource.</p>	<p>If preservation in place is feasible, complete when approved ARPP is implemented</p> <p>Considered complete when archeological consultant completes additional measures as directed by the ERO as warranted</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>If upon examination the project archeologist determines the find appears to be a potentially significant archeological resource, the project archeologist shall present the findings of this assessment to the ERO. The project sponsor shall ensure that the find is protected until the ERO has been consulted and has determined appropriate subsequent treatment in consultation with the project archeologist and the treatment has been implemented, as detailed below.</p> <p>All Native American archeological deposits, irrespective of level of disturbance, shall be assumed to be significant until and unless determined otherwise in consultation with the ERO. If a Native American archeological deposit is encountered, the project archeologist shall obtain the services of a Native American tribal representative to participate in any future archeological monitoring, assessment or data recovery activities that may affect that resource. In addition, the ERO shall notify any tribal representatives who requested to be notified of the discovery of Native American archeological resources in response to the project notification, to coordinate on the treatment or archeological and tribal cultural resources. Further the project archeologist shall offer a Native American representative the opportunity to monitor any subsequent soil disturbing activity that could affect the find.</p> <p><i>Submerged Paleosols.</i> Should a submerged paleosol be identified, the project archeologist shall extract and process samples for dating, flotation for paleobotanical analysis, and other applicable special analyses pertinent to identification of possible cultural soils and for environmental reconstruction, irrespective of whether cultural material is present.</p> <p><i>Archeological Site Records.</i> At the conclusion of assessment of any discovered resources, the project archeologist shall prepare an archeological site record or primary record (DPR 523 series) for each resource evaluated as significant or potentially significant. In addition, a primary record shall be prepared for any Native American isolate. Each such record shall be accompanied by a map and GIS location file. Records shall be submitted to the department for review as attachments to the archeological resources report (see below) and once approved by the ERO, to the Northwest Information Center.</p> <p><i>Preservation in Place Consideration.</i> Should a significant archeological resource be discovered during construction or during archeological</p>				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>monitoring, preservation in place is the preferred treatment option. The ERO shall consult with the project sponsor and, for Native American archeological resources, with the tribal representative(s) if requested to consider (1) the feasibility of permanently preserving the resource in place and (2) whether preservation in place would be effective in preserving both the archeological values and (if applicable) the tribal values represented. If based on this consultation the ERO determines that preservation in place would be both feasible and effective, then the project archeologist, in consultation with the tribal representative if a Native American archeological resource, shall prepare a Cultural Resources Preservation Plan (CRPP). For Native American archeological resources, the CRPP shall explicitly take into consideration the cultural significance of the tribal cultural resource to the tribes. Preservation options may include measures such as design of the project layout to place open space over the resource location; foundation design to avoid the use of pilings or deep excavations in the sensitive area; a plan to expose and conserve the resource and include it in an on-site interpretive exhibit; and/or establishment of a permanent preservation easement. The project archeologist shall submit a draft CRPP to the department and the tribes for review and approval, and the Port shall ensure that the approved plan is implemented during and after construction. If, based on this consultation, the ERO determines that preservation in place is infeasible, archeological data recovery and public interpretation of the resource shall be carried out, as detailed below. The ERO in consultation with the project archeologist shall also determine if additional treatment is warranted, which may include additional testing and/or construction monitoring.</p> <p><i>Coordination with Descendant Communities.</i> On discovery of an archeological site associated with descendant Native Americans, Chinese, or other potentially interested descendant group, the project archeologist shall contact an appropriate representative of the descendant group and the ERO. The representative of the descendant group shall be offered the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site and data recovered from the site, and, if applicable, any interpretative treatment of the site. The project archeologist shall</p>	<p>Archeological consultant, project sponsor and project contractor at the direction of the ERO in consultation with descendant community</p>	<p>During archeological treatment of resource associated with descendant community</p>	<p>Consultation with ERO on identified descendant group. Descendant group provides recommendations, offered opportunity to monitor, and is given a copy of the ARR.</p>	<p>Considered complete upon implementation of measures agreed upon during consultation</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>provide a copy of the Archeological Resources Report (ARR) to the representative of the descendant group.</p> <p><i>Compensation.</i> Tribal representatives or other descendant community representatives for archeological resources or tribal cultural resources who participate in the project shall be compensated for time invested in the preparation or review of plans, documents, artwork, etc., as well as for archeological monitoring undertaken in fulfillment of the requirements of this mitigation measure, similarly to other consultants and experts employed for subsequent projects under the Waterfront Plan. The ERO, Port/project sponsor and project archeologist, as appropriate, shall work with the tribal representative or other descendant community representatives to identify the appropriate scope of consultation work.</p> <p><i>Archeological Data Recovery Program.</i> The project archeologist shall prepare an Archeological Data Recovery Plan (ADRP) if all three of the following apply: (1) a potentially significant resource is discovered, (2) preservation in place is not feasible, and (3) the ERO determines that archeological data recovery is warranted. When the ERO makes such a determination, the project archeologist, project sponsor, ERO and, for tribal cultural archeological resources, the tribal representative, if requested, shall consult on the scope of the data recovery program. The project archeologist shall prepare a draft ADRP and submit it to the ERO for review and approval. If the time needed for preparation and review of a comprehensive ADRP would result in a significant construction delay, the scope of data recovery may instead be agreed upon in consultation between the project archeologist and the ERO and documented by the project archeologist in a memo to the ERO. The ADRP/memo shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain; that is, the ADRP/memo will identify what scientific/historic research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historic property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resource that would not</p>	<p>ERO, archeological consultant, project sponsor, and tribal representative (if requested)</p>	<p>After determination by ERO that an ADRP is required</p>	<p>Archeological consultant shall prepare and submit an ADRP to the ERO.</p>	<p>Considered complete upon implementation of ADRP approved by ERO</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>otherwise by disturbed by construction if nondestructive methods are practical.</p> <p>The ADRP shall include the following elements:</p> <ul style="list-style-type: none"> • Field Methods and Procedures. Descriptions of proposed field strategies, procedures, and operations. • Cataloguing and Laboratory Analysis. Description of selected cataloguing system and proposed types of analyses to be conducted based on anticipated material types. • Discard and deaccession policy. Description of and rationale for field and post-field discard and deaccession policies. • Security measures. Recommended security measures to protect the archeological resource from vandalism, looting, and accidental damage. • Final report. Description of report format and distribution. • Public interpretation. Description of potential types of interpretive products and locations of interpretive exhibits based on consultation with the project sponsor. • 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. <p>The project archeologist shall implement the archeological data recovery program upon approval of the ADRP/memo by the ERO.</p> <p><i>Coordination of Archeological Data Recovery Investigations.</i> In cases in which the same resource has been or is being affected by another project for which data recovery has been conducted, is in progress, or is planned, the following measures shall be implemented, to maximize the scientific and interpretive value of the data recovered from both archeological investigations:</p> <ul style="list-style-type: none"> • In cases where neither investigation has not yet begun, both project archeologists and the ERO shall consult on coordinating and collaboration on archeological research design, data recovery methods, analytical methods, reporting, curation and interpretation to ensure consistent data recovery and treatment of the resource. 				

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<ul style="list-style-type: none"> In cases where archeological data recovery investigation is already under way or has been completed for a prior project, the project archeologist for the subsequent project shall consult with the prior project archeologist, if available; review prior treatment plans, findings and reporting; and inspect and assess existing archeological collections/inventories from the site prior to preparation of the archeological treatment plan for the subsequent discovery, and shall incorporate prior findings in the final report of the subsequent investigation. The objectives of this coordination and review of prior methods and findings will be to identify refined research questions; avoid redundant work and maximize the benefits of additional data recovery; determine appropriate data recovery methods and analyses; assess new findings relative to prior research findings; and integrate prior findings into subsequent reporting and interpretation. <p><i>Treatment of Human Remains and Funerary Objects.</i> The treatment of human remains and funerary objects discovered during any soil-disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Medical Examiner of the City and County of San Francisco. The ERO also shall be notified immediately upon the discovery of human remains. In the event of the Medical Examiner’s determination that the human remains are Native American remains, the Medical Examiner shall notify the California State Native American Heritage Commission, which will appoint a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98(a)).</p> <p>The project sponsor and ERO shall make all reasonable efforts to develop a Burial Agreement (“Agreement”) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain</p>	Project sponsor/ archeological consultant in consultation with the ERO, Medical Examiner, NAHC, and MLD as warranted	Discovery of human remains	Project archeologist or project sponsor shall notify ERO and Medical Examiner, who will contact NAHC as warranted.	Considered complete on finding by ERO that all State laws regarding human remains/burial objects have been adhered to, consultation with MLD is completed as warranted, that sufficient opportunity has been provided to the Archeological consultant for any scientific/historical analysis of remains/funerary objects specified in the Agreement, and the agreed-upon disposition of the remains has occurred

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>If the remains cannot be permanently preserved in place, the Port shall consult with the MLD and may consult with the project archeologist, project sponsor and the ERO on recovery of the remains and any scientific treatment alternatives. The landowner shall then make all reasonable efforts to develop a Burial Agreement (Agreement) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). Per Public Resources Code section 5097.98(c)(1), the Agreement shall address, as applicable and to the degree consistent with the wishes of the MLD, the appropriate excavation, removal, recordation, scientific analysis, custodianship prior to reinternment or curation, and final disposition of the human remains and funerary objects. If the MLD agrees to scientific analyses of the remains and/or funerary objects, the archeological consultant shall retain possession of the remains and funerary objects until completion of any such analyses, after which the remains and funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>Both parties are expected to make a concerted and good faith effort to arrive at a Burial Agreement. However, if the Port and the MLD are unable to reach an Agreement on scientific treatment of the remains and/or funerary objects, the ERO, in consultation with the Port shall ensure that the remains and/or funerary objects are stored securely and respectfully until they can be reinterred on the project site, with appropriate dignity, in a location not subject to further or future subsurface disturbance, in accordance with the provisions of State law.</p> <p>Treatment of historic-period human remains and/or funerary objects discovered during any soil-disturbing activity shall be in accordance with protocols laid out in the project archeological treatment document, and other relevant agreements established between the project sponsor, Medical Examiner and the ERO. The project archeologist shall retain custody of the remains and associated materials while any scientific study scoped in the treatment document is conducted and the remains shall</p>				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>then be curated or respectfully reinterred by arrangement on a case-by case-basis.</p> <p><i>Cultural Resources Public Interpretation Plan and Land Acknowledgement.</i> If a significant archeological resource is identified, the project archeologist shall prepare a Cultural Resources Public Interpretation Plan (CRPIP). The CRPIP shall describe the interpretive product(s), locations or distribution of interpretive materials or displays, the proposed content and materials, the producers or artists of the displays or installation, and a long-term maintenance program.</p> <p>If the resource to be interpreted is a tribal cultural resource, the department shall notify Native American tribal representatives that public interpretation is being planned. The CRPIP shall be prepared in consultation with and developed with the participation, if requested by a tribe, of Native American tribal representatives, and the interpretive materials shall include an acknowledgement that the project is located upon traditional Ohlone lands. For interpretation of a tribal cultural resource, the interpretive program may include a combination of artwork, preferably by local Native American artists, educational panels or other informational displays, a plaque, or other interpretative elements including digital products that address local Native people’s experience and the layers of history. As feasible, and where landscaping is proposed, the interpretive effort may include the use and the interpretation of native and traditional plants incorporated into the proposed landscaping.</p> <p>The project archeological consultant shall submit the CRPIP and drafts of any interpretive materials that are subsequently prepared to the ERO for review and approval. The project sponsor shall ensure that the CRPIP is implemented prior to occupancy of the project.</p> <p><i>Archeological Resources Report.</i> 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. If significant resources were found, the report shall also describe any archeological testing and data recovery efforts and results, and evaluation of the California Register and tribal significance of any discovered archeological resource. It shall also describe the research design, archeological and historic research methods employed, analytical results and interpretations, and if applicable, curation arrangements. Daily</p>	<p>Archeological/interpretation consultant at the direction of the ERO will prepare CRPIP. Measure laid out in CRPIP are implemented by sponsor and consultant. Native American representative (if requested).</p>	<p>Following completion of cataloguing, analysis, and interpretation of recovered archeological data</p>	<p>Archeological consultant submits draft CRPIP to ERO for review and approval.</p>	<p>CRPIP is complete on review and approval of ERO; interpretation plan is complete on certification to ERO that plan has been implemented</p>
	<p>Archeological consultant at the direction of the ERO</p>	<p>Following completion of cataloguing, analysis, and interpretation of recovered archeological data</p>	<p>Archeological consultant shall prepare and submit ARR to the ERO for review and approval.</p>	<p>Complete on certification to ERO that copies of the approved ARR have been distributed</p>

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<p>monitoring logs and formal site recordation forms (CA DPR 523 series) shall be attached to the ARR as an appendix.</p> <p>Once approved by the ERO, the project archeologist shall distribute the approved ARR as follows: copies that meet current information center requirements at the time the report is completed (presently, an electronic copy of the report and of each resources record in pdf format and, if available, GIS shapefiles of the project site and of the boundaries and locations of any recorded resources) to the California Archeological Site Survey Northwest Information Center (NWIC), and a copy of the transmittal of the approved ARR to the NWIC to the ERO; one (1) bound hardcopy of the ARR, along with digital files that include an unlocked, searchable PDF version of the ARR, GIS shapefiles of the site and feature locations, 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, via USB or other stable storage device, to the department environmental planning division of the planning department; and, if a descendant group was consulted, a digital or hard copy of the ARR to the descendant group, depending on their preference.</p> <p><i>Curation.</i> Significant archeological collections and paleoenvironmental samples of future research value shall be permanently curated at an established curatorial facility. The facility shall be selected in consultation with the ERO. Upon submittal of the collection for curation the Port or project sponsor or archeologist shall provide a copy of the signed curatorial agreement to the ERO.</p>	Project archeologist prepares collection for curation and Port or project sponsor pays for curation costs	Upon acceptance by the ERO of the final report	Upon submittal of the collection for curation the sponsor or archaeologist shall provide a copy of the signed curatorial agreement to the ERO.	Considered complete upon acceptance of the collection by the curatorial facility
<p>Mitigation Measure M-CR-2c: Archeological Testing Program. If required based on the outcome of preliminary archeological review conducted by qualified San Francisco Planning Department archeological staff, the Port/project sponsor shall retain the services of a qualified archeologist (hereinafter “project archeologist”), to develop and implement an archeological testing program and to address any archeological discoveries, as detailed below, to avoid and mitigate any potential substantial adverse effects from the proposed action on significant archeological resources found during construction.</p>	Project sponsor, qualified archeologist and construction contractor at the direction of the ERO	Prior to issuance of construction permits and throughout the construction period	Project Sponsor shall retain archeological consultant to undertake archeological testing program in consultation with ERO.	Complete when Project Sponsor retains qualified archeological consultant

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<p><i>Project Archeologist.</i> A project archeologist is defined as one who meets the Secretary of the Interior’s Professional Qualification Standards,³ and who has demonstrable experience, as applicable based on the resource type discovered or suspected, in the geoarcheological identification of submerged Native American archeological deposits and/or in the identification and treatment of 19th century archeological resources, including maritime resources as applicable.</p> <p><i>Construction Crew Archeological Awareness.</i> Prior to any soils-disturbing activities being undertaken, the Port shall ensure that the project archeologist conducts a brief on-site archeological awareness training. Training shall include a description of the types of resources that might be encountered and how they might be recognized, and requirements and procedures for work stoppage, resource protection and notification in the event of a potential archeological discovery. The project archeologist also shall coordinate with the project sponsor to ensure that all field personnel involved in soil disturbing activities, including machine operators, field crew, pile drivers, supervisory personnel, etc., have received an “Alert” wallet card that summarizes stop work requirements and provides necessary contact information for the project archeologist, project sponsor and the ERO. The project archeologist shall repeat the training at intervals during construction, as determined necessary by the ERO, including when new construction personnel start work and prior to periods of soil disturbing work when the project archeologist will not be on site.</p> <p>Should any indication of an archeological resource be encountered during any soils-disturbing activity of the project in the absence of the project archeologist, the project sponsor shall immediately suspend any soils-disturbing activities in the vicinity of the discovery and notify the project archeologist, and shall ensure that the find is protected until a project archeologist has inspected it and, in consultation with the ERO as needed, has determined what additional measures should be undertaken. In addition, the ERO shall notify any tribal representatives who requested to</p>	Project sponsor, qualified archeologist, and construction contractor	Prior to soils-disturbing activities	Project sponsor, planning department	Considered complete upon end of ground-disturbing activities

³ 36 SFR 61: The minimum professional qualifications in Archeology are a graduate degree in archeology, anthropology, or closely related field plus: • At least one year of full-time professional experience or equivalent specialized training in archeological research, administration or management; • At least four months of supervised field and analytical experience in general North American archeology; and • Demonstrated ability to carry research to completion. In addition to these minimum qualifications, a professional in prehistoric archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the prehistoric period. A professional in historic archeology shall have at least one year of full-time professional experience at a supervisory level in the study of archeological resources of the historic period.

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<p>be notified of the discovery of Native American archeological resources in response to the project notification, to coordinate on the treatment or archeological and tribal cultural resources.</p> <p><i>Tribal Cultural Resources Sensitivity Training.</i> In addition to and concurrently with the archeological awareness training, for sites at which the ERO has determined that there is the potential for the discovery of Native American archeological resources, and if requested by a tribe pursuant to the department’s tribal cultural resources notification process, the Port shall ensure that a Native American representative is afforded the opportunity to provide a Native American cultural resources sensitivity training to all construction personnel.</p> <p><i>General Specifications.</i> The archeological consultant shall develop and 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 to address archeological discoveries or the assessed potential for archeological discoveries, pursuant to this measure.</p> <p>The project archeologist’s work shall be conducted in accordance with this measure at the direction of the ERO. All plans and reports prepared by the project archeologist 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.</p> <p>The project sponsor shall ensure that the project archeologist or designee is empowered to halt soil disturbing activity in the vicinity of a potential archeological find and that work shall remain halted until the discovery has been assessed and a treatment determination made, as detailed below.</p> <p>Archeological testing and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines section 15064.5(a)(c).</p>	<p>Project sponsor, qualified archeologist, construction contractor, and Native American representative</p>	<p>Prior to soils-disturbing activities</p>	<p>Project sponsor, planning department</p>	<p>Considered complete upon the end sensitivity training program and end of ground disturbing activities</p>

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<p><i>Archeological Testing Program.</i> The archeological consultant shall develop and 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 to address archeological discoveries or the assessed potential for archeological discoveries, pursuant to this measure. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources in areas of project soil disturbance and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historic resource under CEQA.</p> <p><i>Archeological Testing Plan (ATP).</i> The project archeologist shall consult with the ERO reasonably prior to the commencement of any project-related soils disturbing activities to determine the appropriate scope of archeological testing. The archeological testing program shall be conducted in accordance with an approved ATP, prepared by the project archeologist consistent with the approved scope of work. The ATP shall be submitted first and directly to the ERO for review and comment and shall be considered a draft subject to revision until final approval by the ERO. Project-related soils disturbing activities shall not commence until the testing plan has been approved and any testing scope to occur in advance of construction has been completed. The project archeologist shall implement the testing as specified in the approved ATP prior to and/or during construction.</p> <p>The ATP, minimally, shall include the following:</p> <ul style="list-style-type: none"> • Project description: Description of all anticipated soil disturbing activities, with locations and depths of disturbance. These may include foundation and utility demolition, hazardous soils remediation, site grading, shoring excavations, piles or soil improvements, and foundation, elevator, car stacker, utility and landscaping excavations. Project plans and profiles shall be included as needed to illustrate the locations of anticipated soil disturbance. • Site-specific environmental and cultural context: Pre-contact and historic environmental and cultural setting of the project site as pertinent to potential Native American use and historic period development, any available information pertaining to subsequent soil disturbance as pertains to potential survival of archeological resources, 	Project sponsor's qualified archeological consultant and construction contractor at the direction of the ERO	Prior to issuance of construction permits and throughout the construction period	Archeological consultant shall submit a draft ATP to the ERO for review and approval.	Considered complete after implementation of approved ATP and review and approval of archeological testing results memo by ERO

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<p>and strata in and depths at which they might be found, such as stratigraphic and water table data from prior geotechnical testing. As appropriate based on the scale and scope of the project, the ATP should include maps (e.g., USCS 1869; Sanborn fire insurance maps) that depict the historic and environmental setting and changes in the project site as a basis for predicting resource types that might be encountered and their potential locations. An overlay of the project site on the City’s Native American archeological sensitivity model mapping should be included, as should the locations of all known archeological sites within 0.25 mile of the project site.</p> <ul style="list-style-type: none"> • Brief research design: scientific/historic research questions applicable to the expected resource(s), what data classes potential resources may be expected to possess, and how the expected data classes would address the applicable research questions. • Analysis of anticipated resources or resource types that might be encountered and at what locations and depths, based on known resources in the vicinity, the site’s predevelopment setting and development history, and the anticipated depth and extent of project soil disturbances. • Proposed scope of archeological testing and rationale: testing methods to be used (e.g., coring, mechanical trenching, manual excavation, or combination of methods); locations and depths of testing in relation to anticipated project soil disturbance; strata to be investigated; any uncertainties on stratigraphy that would affect locations or depths of tests and might require archeological monitoring of construction excavations subsequent to testing. • Resource documentation and significance assessment procedures. ERO and Native American consultation requirements upon making a discovery; pre-data recovery assessment process, consistent with the specifications of this measure • Standard text on burial treatment procedures; and • Reporting and curation requirements. <p><i>Archeological Testing Results Memo.</i> Irrespective of whether archeological resources are discovered, the archeological consultant shall submit a written summary of the findings to the ERO at the completion of the</p>				

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<p>archeological testing program. The findings report/memo shall describe each resource, provide an initial assessment of the integrity and significance of encountered archeological deposits encountered during testing, and provide recommendations for subsequent treatment of any resources encountered.</p> <p><i>Resource Evaluation and Treatment Determination.</i> If an archeological deposit or feature is encountered during testing or subsequent construction soil disturbance, the project archeologist shall redirect soil disturbing demolition/excavation/piledriving/construction crews and heavy equipment activity in the vicinity away from the find. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the project sponsor shall ensure that pile driving is halted until an appropriate evaluation of the resource has been made.</p> <p>The project archeologist shall document the find, and make a reasonable effort to assess its identity, integrity, and significance of the encountered archeological deposit through, sampling or testing as needed. The project sponsor shall make provisions to ensure that the project archeologist can safely enter the excavation, if feasible.</p> <p>If upon examination the project archeologist determines the find appears to be a potentially significant archeological resource, the project archeologist shall present the findings of this assessment to the ERO. The project sponsor shall ensure that the find is protected until the ERO has been consulted and has determined appropriate subsequent treatment in consultation with the project archeologist and the treatment has been implemented, as detailed below.</p> <p>All Native American archeological deposits, irrespective of level of disturbance, shall be assumed to be significant until and unless determined otherwise in consultation with the ERO. If a Native American archeological deposit is encountered, the project archeologist shall obtain the services of a Native American tribal representative to participate in any future archeological monitoring, assessment or data recovery activities that may affect that resource. In addition, the ERO shall notify any tribal representatives who requested to be notified of the discovery of Native American archeological resources in response to the project notification, to coordinate on the treatment or archeological and tribal cultural</p>	<p>Archeological consultant, project sponsor and construction contractor at the direction of the ERO</p>	<p>At the completion of archeological testing and/or discovery of a potentially significant archeological resource</p>	<p>Planning department/project sponsor</p>	<p>If preservation in place is feasible, complete when approved ARPP is implemented; considered complete when archeological consultant completes additional measures as directed by the ERO as warranted</p>

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<p>resources. Further the project archeologist shall offer a Native American representative the opportunity to monitor any subsequent soil disturbing activity that could affect the find.</p> <p><i>Submerged Paleosols.</i> Should a submerged paleosol be identified, the project archeologist shall extract and process samples for dating, flotation for paleobotanical analysis, and other applicable special analyses pertinent to identification of possible cultural soils and for environmental reconstruction, irrespective of whether cultural material is present.</p> <p><i>Archeological Site Records.</i> At the conclusion of assessment of any discovered resources, the project archeologist shall prepare an archeological site record or primary record (DPR 523 series) for each resource evaluated as significant or potentially significant. In addition, a primary record shall be prepared for any Native American isolate. Each such record shall be accompanied by a map and GIS location file. Records shall be submitted to the department for review as attachments to the archeological resources report (see below) and once approved by the ERO, to the Northwest Information Center.</p> <p><i>Preservation in Place Consideration.</i> Should a significant archeological resource be discovered during construction or during archeological testing or monitoring, preservation in place is the preferred treatment option. The ERO shall consult with the project sponsor and, for Native American archeological resources, with the tribal representative(s) if requested, to consider (1) the feasibility of permanently preserving the resource in place and (2) whether preservation in place would be effective in preserving both the archeological values and (if applicable) the tribal values represented. If, based on this consultation, the ERO determines that preservation in place is determined to be both feasible and effective, then the project archeologist, in consultation with the tribal representative if a Native American archeological resource, shall prepare a Cultural Resources Preservation Plan (CRPP). For Native American archeological resources, the CRPP shall explicitly address the cultural significance of the tribal cultural resource to the tribes. Preservation options may include measures such as redesign of the project layout to place open space over the resource location; foundation design to avoid the use of pilings or deep excavations in the sensitive area; a plan to expose and conserve the resource and include it in an on-site interpretive exhibit; and/or</p>				

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<p>establishment of a permanent preservation easement. The project archeologist shall submit a draft CRPP to the department and the tribes for review and approval, and the Port/project sponsor shall ensure that the approved plan is implemented during and after construction. If, based on consultation, the ERO determines that preservation in place is infeasible, archeological data recovery and public interpretation of the resource shall be carried out as detailed below. The ERO in consultation with the project archeologist shall also determine if additional treatment is warranted, which may include additional testing and/or construction monitoring.</p> <p><i>Coordination with Descendant Communities.</i> On discovery of an archeological site associated with descendant Native Americans, Chinese, or other potentially interested descendant group, the project archeologist shall contact an appropriate representative of the descendant group and the ERO. The representative of the descendant group shall be offered the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site and data recovered from the site, and, if applicable, any interpretative treatment of the site. The project archeologist shall provide a copy of the Archeological Resources Report (ARR) to the representative of the descendant group.</p> <p><i>Compensation.</i> Tribal representatives or other descendant community representatives for archeological or tribal cultural resources who participate in the project shall be compensated for time invested in the preparation or review of plans, documents, artwork, etc., as well as for archeological monitoring undertaken in fulfillment of the requirements of this mitigation measure, similarly to other consultants and experts employed for subsequent projects under the Waterfront Plan. The ERO, Port/project sponsor and project archeologist, as appropriate, shall work with the tribal representative or other descendant community representatives to identify the appropriate scope of consultation work.</p> <p><i>Archeological Data Recovery Program.</i> the project archeologist shall prepare an Archeological Data Recovery Plan (ADRP) if all three of the following apply: (1) a potentially significant resource is discovered, (2) preservation in place is not feasible, and (3) the ERO determines that archeological data recovery is warranted. When the ERO makes such a determination, the project archeologist, project sponsor, ERO and, for</p>	<p>Archeological consultant, project sponsor and project contractor at the direction of the ERO in consultation with descendant community</p> <p>ERO, archeological consultant, project sponsor, and tribal representative (if requested)</p>	<p>During archeological treatment of resource associated with descendant community</p> <p>After determination by ERO that an ADRP is required</p>	<p>Consultation with ERO on identified descendant group. Descendant group provides recommendations, offered opportunity to monitor, and is given a copy of the ARR.</p> <p>Archeological consultant submits ADRP to ERO for review and approval.</p>	<p>Considered complete upon implementation of measures agreed upon during consultation</p> <p>Considered complete upon implementation of ADRP approved by ERO</p>

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<p>tribal cultural archeological resources, the tribal representative, shall coordinate on the scope of the data recovery program, if requested. The archeological consultant shall prepare a draft ADRP and submit it to the ERO for review and approval. If the time needed for preparation and review of a comprehensive ADRP would result in a significant construction delay, the scope of data recovery may instead be agreed upon in consultation between the project archeologist and the ERO and documented by the project archeologist in a memo to the ERO. The ADRP/memo shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain; that is, the ADRP/memo will identify what scientific/historic research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historic property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resource that would not otherwise be disturbed by construction if nondestructive methods are practical.</p> <p>The ADRP shall include the following elements:</p> <ul style="list-style-type: none"> • Field Methods and Procedures: Descriptions of proposed field strategies, procedures, and operations. • Cataloguing and Laboratory Analysis: Description of selected cataloguing system and proposed types of analyses to be conducted based on anticipated material types. • Discard and deaccession policy: Description of and rationale for field and post-field discard and deaccession policies. • Security measures: Recommended security measures to protect the archeological resource from vandalism, looting, and accidental damage. • Final report: Description of proposed report format and distribution of results. • Public interpretation: Description of potential types of interpretive products and locations of interpretive exhibits based on consultation with the project sponsor. 				

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<ul style="list-style-type: none"> • 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. <p>The project archeologist shall implement the archeological data recovery program upon approval of the ADRP/memo by the ERO.</p> <p><i>Coordination of Archeological Data Recovery Investigations.</i> In cases in which the same resource has been or is being affected by another project for which data recovery has been conducted, is in progress, or is planned, the following measures shall be implemented to maximize the scientific and interpretive value of the data recovered from both archeological investigations:</p> <ul style="list-style-type: none"> • In cases where neither investigation has not yet begun, both project archeologists and the ERO shall consult on coordinating and collaboration on archeological research design, data recovery methods, analytical methods, reporting, curation and interpretation to ensure consistent data recovery and treatment of the resource. • In cases where archeological data recovery investigation is already under way or has been completed for a prior project, the project archeologist for the subsequent project shall consult with the prior project archeologist, if available; review prior treatment plans, findings and reporting; and inspect and assess existing archeological collections/inventories from the site prior to preparation of the archeological treatment plan for the subsequent discovery, and shall incorporate prior findings in the final report of the subsequent investigation. The objectives of this coordination and review of prior methods and findings will be to identify refined research questions; avoid redundant work and maximize the benefits of additional data recovery; determine appropriate data recovery methods and analyses; assess new findings relative to prior research findings; and integrate prior findings into subsequent reporting and interpretation. 				

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<p><i>Treatment of Human Remains and Funerary Objects.</i> The treatment of human remains and funerary objects discovered during any soil-disturbing activity shall comply with applicable State and federal laws. This shall include immediate notification of the Medical Examiner of the City and County of San Francisco. The ERO also shall be notified immediately upon the discovery of human remains. In the event of the Medical Examiner’s determination that the human remains are Native American remains, the Medical Examiner shall notify the California State Native American Heritage Commission, which will appoint a Most Likely Descendant (MLD). The MLD will complete his or her inspection of the remains and make recommendations or preferences for treatment within 48 hours of being granted access to the site (Public Resources Code section 5097.98(a)).</p> <p>The project sponsor and ERO shall make all reasonable efforts to develop a Burial Agreement (“Agreement”) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and associated or unassociated funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). The Agreement shall take into consideration the appropriate excavation, removal, recordation, scientific analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD agrees to scientific analyses of the remains and/or associated or unassociated funerary objects, the archeological consultant shall retain possession of the remains and associated or unassociated funerary objects until completion of any such analyses, after which the remains and associated or unassociated funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>If the remains cannot be permanently preserved in place, the Port shall consult with the MLD and may consult with the project archeologist, project sponsor and the ERO on recovery of the remains and any scientific treatment alternatives. The landowner shall then make all reasonable efforts to develop a Burial Agreement (Agreement) with the MLD, as expeditiously as possible, for the treatment and disposition, with appropriate dignity, of human remains and funerary objects (as detailed in CEQA Guidelines section 15064.5(d)). Per Public Resources Code section 5097.98(c)(1), the Agreement shall address, as applicable and to the degree consistent with the wishes of the MLD, the appropriate</p>	Project sponsor/ archeological consultant in consultation with the ERO, Medical Examiner, NAHC, and MLD as warranted	In the event that human remains are uncovered during the construction period	Project archeologist or project sponsor shall notify ERO and Medical Examiner, who will contact NAHC as warranted.	Considered complete on finding by the Environmental Review Officer that all state laws regarding human remains/burial objects have been adhered to, consultation with the most likely descendant is completed as warranted, and disposition of human remains has occurred as specified in Agreement

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<p>excavation, removal, recordation, scientific analysis, custodianship prior to reinternment or curation, and final disposition of the human remains and funerary objects. If the MLD agrees to scientific analyses of the remains and/or funerary objects, the archeological consultant shall retain possession of the remains and funerary objects until completion of any such analyses, after which the remains and funerary objects shall be reinterred or curated as specified in the Agreement.</p> <p>Both parties are expected to make a concerted and good faith effort to arrive at a Burial Agreement. However, if the Port and the MLD are unable to reach an Agreement on scientific treatment of the remains and/or funerary objects, the ERO, in consultation with the Port shall ensure that the remains and/or funerary objects are stored securely and respectfully until they can be reinterred on the project site, with appropriate dignity, in a location not subject to further or future subsurface disturbance, in accordance with the provisions of state law.</p> <p>Treatment of historic-period human remains and/or funerary objects discovered during any soil-disturbing activity shall be in accordance with protocols laid out in the project archeological treatment document, and other relevant agreements established between the project sponsor, Medical Examiner and the ERO. The project archeologist shall retain custody of the remains and associated materials while any scientific study scoped in the treatment document is conducted and the remains shall then be curated or respectfully reinterred by arrangement on a case-by case-basis.</p> <p><i>Cultural Resources Public Interpretation Plan and Land Acknowledgement.</i> If a significant archeological resource is identified, the project archeologist shall prepare a Cultural Resources Public Interpretation Plan (CRPIP). The CRPIP shall describe the interpretive product(s), locations or distribution of interpretive materials or displays, the proposed content and materials, the producers or artists of the displays or installation, and a long-term maintenance program.</p> <p>If the resource to be interpreted is a tribal cultural resource, the department shall notify Native American tribal representatives that public interpretation is being planned. The CRPIP shall be prepared in consultation with and developed with the participation, if requested by a tribe, of Native American tribal representatives, and the interpretive</p>	<p>Archeological/interpretation consultant at the direction of the ERO will prepare CRPIP. Measure laid out in CRPIP are implemented by sponsor and consultant. Native American representative (if requested)</p>	<p>Following completion of treatment, analysis, and interpretation of by archeological consultant</p>	<p>Archeological consultant shall submit the CRPIP to ERO for review and approval.</p>	<p>CRPIP is complete on review and approval of ERO. Interpretive program is complete on certification to ERO that program has been implemented</p>

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<p>materials shall include an acknowledgement that the project is located upon traditional Ohlone lands. For interpretation of a tribal cultural resource, the interpretive program may include a combination of artwork, preferably by local Native American artists, educational panels or other informational displays, a plaque, or other interpretative elements including digital products that address local Native people’s experience and the layers of history. As feasible, and where landscaping is proposed, the interpretive effort may include the use and the interpretation of native and traditional plants incorporated into the proposed landscaping.</p> <p>The project archeological consultant shall submit the CRPIP and drafts of any interpretive materials that are subsequently prepared to the ERO for review and approval. The project sponsor shall ensure that the CRPIP is implemented prior to occupancy of the project.</p> <p><i>Archeological Resources Report.</i> Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the testing program to the ERO. If significant resources were found, the report shall also describe any archeological testing and data recovery efforts and results and provide evaluation of the California Register and tribal significance of any discovered archeological resource. It shall also describe the research design, archeological and historic research methods employed, analytical results and interpretations, and if applicable, curation arrangements. Formal site recordation forms (CA DPR 523 series) shall be attached to the ARR as an appendix.</p> <p>Once approved by the ERO, the project archeologist shall distribute the approved ARR as follows: copies that meet current information center requirements at the time the report is completed (presently, an electronic copy of the report and of each resources record in pdf format and, if available, GIS shapefiles of the project site and of the boundaries and locations of any recorded resources) to the California Archeological Site Survey Northwest Information Center (NWIC), and a copy of the transmittal of the approved ARR to the NWIC to the ERO; one bound hardcopy of the ARR, along with digital files that include an unlocked, searchable PDF version of the ARR, GIS shapefiles of the site and feature locations, any formal site recordation forms (CA DPR 523 series), and/or documentation for nomination to the National Register of Historic Places/California</p>	Archeological consultant at the direction of the ERO	At completion of archeological investigations	Archeological consultant shall prepare and submit ARR to the ERO for review and approval.	Complete on certification to ERO that copies of the approved ARR have been distributed

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<p>Register of Historical Resources, via USB or other stable storage device, to the department environmental planning division of the planning department; and, if a descendant group was consulted, a digital or hard copy of the ARR to the descendant group, depending on their preference.</p> <p><i>Curation.</i> Significant archeological collections and paleoenvironmental samples of future research value shall be permanently curated at an established curatorial facility. The facility shall be selected in consultation with the ERO. Upon submittal of the collection for curation the Port of project sponsor or archeologist shall provide a copy of the signed curatorial agreement to the ERO.</p>	Project archeologist prepares collection for curation and Port or project sponsor pays for curation costs	Upon acceptance by the ERO of the final report	Upon submittal of the collection for curation the sponsor or archaeologist shall provide a copy of the signed curatorial agreement to the ERO.	Considered complete upon acceptance of the collection by the curatorial facility
<p>Mitigation Measure M-CR-2d: Treatment of Submerged and Deeply Buried Resources. This measure applies to projects that would include multiple subgrade stories or entail the use of piles, soil improvements or other deep foundations in landfill areas within former creeks, bay marshes or waters of the bay that may be sensitive for submerged or buried historic or Native American archeological resources as determined in the preliminary archeological review prepared by the department; and/or in the event of the discovery of a submerged or deeply buried resource during archeological testing or soil-disturbing construction activities. This measure shall be applied in conjunction with Waterfront Plan Mitigation Measures M-CR-2a, Accidental Discovery, and/or M-CR-2b, Archeological Monitoring Program, and/or M-CR-2c, Archeological Testing Program, and all relevant provisions of those measures shall be implemented in addition to the provisions of this measure, as detailed below.</p> <p>The following measures additional shall be undertaken upon discovery of a potentially significant deeply buried or submerged resource to minimize significant effects from deep project excavations, soil improvements, pile construction, or construction of other deep foundation systems, in cases where the ERO has determined through consultation with the sponsor, and with tribal representatives as applicable, that preservation in place—the preferred mitigation—is not a feasible or effective option. Note that limiting impacts to a buried or submerged deposit to pile driving or soil improvements shall not be construed as representing preservation in place.</p>	The archeological consultant, project sponsor and project contractor and tribal representative (for Native American archeological resources) at the direction of the ERO	In the event of the discovery of a submerged or deeply buried archeological resource	Planning department/project sponsor	After completed implementation of treatment program by project sponsor identified in approved treatment program memo

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<p><i>Treatment Determination.</i> If the resource cannot feasibly or adequately be preserved in place, in situ documentation and/or archeological data recovery shall be conducted, consistent with the provisions of Mitigation Measures M-CR-2a, Accidental Discovery; M-CR-2b, Archeological Monitoring Program; and M-CR-2c, Archeological Testing Program, as detailed in the Waterfront Plan EIR MMRP. However, by definition, such resources sometimes are located deeper than the maximum anticipated depth of project mass excavations, such that the resource would not be exposed for investigation, and/or under water or may otherwise pose substantial access, safety or other logistical constraints for data recovery; or the cost of providing archeological access to the resource may demonstrably be prohibitive.</p> <p>In such cases, where physical documentation and data recovery will be limited by the constraints identified above, the ERO, project sponsor, project archeologist, and tribal representative if requested, shall consult to explore alternative documentation and treatment options to be implemented in concert with any feasible archeological data recovery. The appropriate treatment elements, which would be expected to vary with the type of resource and the circumstances of discovery, shall be identified by the ERO based on the results of consultation from among the measures listed below. Additional treatment options may be developed and agreed upon through consultation if it can be demonstrated that they would be equally or more effective in recovering or amplifying the value of the data recovered from physical investigation of the affected resources by addressing applicable archeological research questions and in disseminating those data and meaningfully interpreting the resource to the public.</p> <p>Potential treatment measure options listed below are applicable to both Native American archeological deposits and features, and historic maritime resources. Each treatment measure or a combination of these treatment measures, in concert with any feasible standard data recovery methods applied as described above, would be effective in mitigating significant impacts to submerged and buried resources. However, some measures are more applicable to one type of resource than the other; to a specific construction method; to the specific circumstances of discovery; and to the stratigraphic position of the resource. The ERO, in consultation</p>				

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<p>with the project archeologist and project sponsor, shall identify which of these measures that, individually or in combination, will be applicable and effective in recovering sufficient data, enhancing the research value of the data recovery, meaningfully interpreting the resource to the public, or otherwise effectively mitigating the loss of data or associations that will result from project construction. Multiple treatment measures shall be adopted in combination, as needed to adequately mitigate data loss and, as applicable, impacts to tribal cultural values, as determined in consultation with the ERO and, as applicable, tribal representatives.</p> <p>Additional treatment options may be considered and shall be adopted, subject to ERO approval, if it can be demonstrated that they would provide data relevant to the understanding and interpretation of the resource on the project site or to the affected class of resources (e.g., rare submerged and deeply buried Native American archeological resources of Early or Middle Holocene age); or that would otherwise enhance the scientific or historic research value of any data recovered directly from the resource; and/or would enhance public interpretation of the resource, as detailed below.</p> <p><i>Treatment Program Memo.</i> The project archeologist shall document the results of the treatment program consultation with respect to the agreed upon scope of treatment in a treatment program memo, for ERO review and approval. Upon approval by the ERO, the project sponsor shall ensure that treatment program is implemented prior to and during subsequent construction, as applicable. Reporting, interpretive, curation and review requirements are the same as delineated under the other cultural resources mitigation measures that are applicable to the project, as noted above. The project sponsor shall be responsible for ensuring the implementation of all applicable mitigation measures, as identified in the treatment program memo.</p> <p><i>Potential Treatment Measures.</i></p> <ul style="list-style-type: none"> • <i>Remote Archeological Documentation.</i> Where a historic feature cannot be recovered or adequately documented in place by the archeologist due to size, bulk or inaccessibility, the archeologist shall conduct all feasible remote documentation methods, such as 3-D photography using a remote access device, remote sensing (e.g., ground-penetrating radar with a low-range [150 or 200 MHz] antenna), or other appropriate 				

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<p>technologies and methods, to accurately document the resource and its context. As noted, the project sponsor and contractor shall support remote archeological documentation as needed, such as by assisting with equipment access (e.g., drone, lights and camera or laser scanner mounted on backhoe); providing personnel qualified to enter the excavation to assist with documentation; and accommodating training of construction personnel by the project archeologist so that they can assist in measuring or photographing the resource from inside the excavation in cases when the archeologist cannot be allowed to enter.</p> <ul style="list-style-type: none"> • <i>Modification of Contractor’s Excavation Methods.</i> As needed to prevent damage to the resource before it has been documented; to assist in exposure and facilitate observation and documentation; and potentially to assist in data recovery; at the request of the ERO the project sponsor shall consult with the project archeologist and the ERO to identify modifications to the contractor’s excavation and shoring methods. Examples include improved dewatering during excavation; use of a smaller excavator bucket or toothless bucket; discontinuing immediate offhaul of spoils and providing a location where spoils can be spread out and examined by the archeologist prior to being offhauled; and phasing or benching of deep excavations to facilitate observation and/or deeper archeological trenching. • <i>Data Recovery through Open Excavation.</i> If the project will include mass excavation to the depth of the buried/submerged deposit, archeological data recovery shall include manual (preferred) or controlled mechanical sampling of the deposit. If project construction would not include mass excavation to the depth of the deposit but would impact the deposit through deep foundation systems or soil improvements, the ERO and the project sponsor shall consult to consider whether there are feasible means of providing direct archeological access to the deposit (for example, excavation of portion of the site that overlies the deposit to the subject depth so that a sample can be recovered). The feasibility consideration shall include an estimate of the project cost of excavating to the necessary depth and of providing shoring and dewatering sufficient to allow archeological access to the deposit for manual or mechanical recovery. 				

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<ul style="list-style-type: none"> <p><i>Mechanical Recovery.</i> If site circumstances limit access to the find in situ, the ERO, archeological consultant and project sponsor shall consider the feasibility of mechanically removing the feature or portion of a feature intact for off-site documentation and analysis, preservation and interpretive use. The consultation above shall include consideration as to whether such recovery is logistically feasible and can be accomplished without major data loss. The specific means and methods and the type and size of the sample shall be identified, and the recovery shall be implemented if determined feasible by the ERO. The sponsor shall assist with mechanical recovery and transport and curation of recovered materials and shall provide for an appropriate and secure off-site location for archeological documentation and storage as needed.</p> <p><i>Salvage of Historic Materials.</i> Samples or sections of historic features that cannot be preserved in place (such a structural members of piers or wharves, sections of wooden sea wall, rail alignments, or historic utility or paving features of particular data value or interpretive interest) shall be tested for contamination and, if not contaminated, shall be salvaged for interpretive use or other reuse. These might include uses such as display of a reconstructed resource; use of timbers or planks for furniture, such as landscape boxes, railings, benches or platforms, and signage structures, and installation of such features in publicly accessible open spaces; or other uses of public interest. Historic wood and other salvageable historic structural material not used for interpretation shall be recovered for reuse, consistent with the San Francisco Ordinance No.27-06, which requires recycling or reuse of all construction and demolition debris material removed from a project. If the project has the potential to encounter such features, the project sponsor shall plan in advance for reuse of salvaged historic materials to the greatest extent feasible, including identification of a location for interim storage and identification of potential users and reuses.</p> <p><i>Data Recovery Using Geoarcheological Cores.</i> If, subsequent to identification and boundary definition of a buried/ submerged resource, it is deemed infeasible to expose the resource for archeological data recovery, geoarcheological coring of the identified deposit shall be</p> 				

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<p>conducted at grid intervals of no greater than 5 meters/15 feet. The maximum feasible core diameter shall be used for data recovery coring. However, while geoarcheological coring can provide basic data about a resource (e.g., food sources exploited, date), due to the of the small size of the sample recoverable through geoarcheological coring the recovered sample, even from numerous cores, this method generally cannot recover a sufficient quantity of data to adequate characterize the range of activities that took place at the site. For this reason, if the coring sample constitutes less than 5 percent of the estimated volume of material within the boundaries of the resource that will be directly impacted by project construction, the following additional measures shall be implemented in concert with geoarcheological coring to fully mitigate significant impacts to such a resource.</p> <ul style="list-style-type: none"> • <i>Scientific Analysis of Data from Comparable Archeological Sites/“Orphaned Collections.”</i> The ERO and the project archeologist shall consult to identify a known archeological site or historic feature, or curated collections or samples recovered during prior investigation of similar sites or features are available for further analysis; and for which site-specific or comparative analyses would be expected to provide data relevant to the interpretation or context reconstruction for the affected site. Appropriate analyses, to be identified in consultation between the ERO, the consultant and (for Native American archeological deposits) the Native American representative(s), may include reanalysis or comparative analysis of artifacts or archival records; faunal or paleobotanical analyses; dating; isotopes studies; or such other relevant studies as may be proposed by members of the project team based on the research design developed for the affected site and on data available from affected resource and comparative collections. The scope of analyses would be determined by the ERO based on consultation with the project archeologist, the project sponsor, and (for sites of Native American origin) Native American representatives. • <i>Additional Off-Site Data Collection and/or Sample and Data Analysis for Historic and Paleoenvironmental Reconstruction.</i> The ERO and project archeologist shall identify existing geoarcheological data and geotechnical coring records on file with the city of San Francisco; 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
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<p>and/or cores extracted and preserved during prior geotechnical or geoarcheological investigations that could contribute to reconstruction of the environmental setting in the vicinity of the identified resource, to enhance the historic and scientific value of recovered data by providing additional data about prehistoric environmental setting and stratigraphic sensitivity; and/or would provide information pertinent to the public interpretation of the significant resource. Objectives of such analyses, depending on the resource type could include: (1) placement of known and as-yet undiscovered Native American archeological resources more securely in their environmental and chronological contexts; (2) more-accurate prediction of locations that are sensitive for Middle Holocene and earlier resources; (3) increased understanding of changes in San Francisco’s historic environmental setting (such as the distribution of inland marshes and ponds and forested areas), and of the chronology of both historic period and prehistoric environmental change and human use. Relevant data may also be obtained through geoarcheological coring at accessible sites identified by the ERO through consultation with San Francisco public agencies and private project sponsors.</p>				
TRIBAL CULTURAL RESOURCES				
<p>Mitigation Measure M-TCR-1: Tribal Notification and Consultation. <i>Summary.</i> Mitigation Measure M-TCR-1, Tribal Notification and Consultation, requires notification of tribal representatives during project-level environmental review of specified types of subsequent projects detailed below. Notification would provide tribal representatives with the opportunity to consult and provide input on whether a tribal cultural resource is present at the subsequent project site, and on whether the subsequent project as proposed would diminish the cultural value of that tribal cultural resource. Consultation under M-TCR-1 would provide opportunities for tribes to review and participate in developing measures to reduce or avoid tribal cultural resource impacts. This measure applies to both archeological tribal cultural resources and non-archeological tribal cultural resources.</p>	<p>Project sponsor archeological consultant, and ERO, in consultation with the local Native American representatives</p>	<p>During environmental review for notification and consultation; prior to issuance of demolition permit and during construction for identified measures</p>	<p>Planning department/project sponsor</p>	<p>Considered complete if no tribal cultural resource is identified, or tribal cultural resource is identified and implementation of identified tribal cultural resource measures</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ⁴			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p><i>Applicability.</i> This measure is applicable for the following types of subsequent projects under the Waterfront Plan:⁴</p> <ul style="list-style-type: none"> • Notification for Native American archeological tribal cultural resources: <ul style="list-style-type: none"> – Projects for which the planning department’s preliminary archeological review identifies potential impacts to a Native American archeological resource; – After the discovery of a significant Native American archeological resource, and when planning for public interpretation of the resource is being initiated. • Notification for non-archeological tribal cultural resources located along the shoreline: <ul style="list-style-type: none"> – Long-term waterfront development projects (50- to 66-year lease terms) along the bay shoreline or piers extending in the bay, including three subsequent projects sites projected for new development: Piers 30–32, Pier 70 Triangle site, and Pier 90; – New construction or major redesign of waterfront open spaces (as determined by the ERO) and public access interpretive exhibits and programs located along the shoreline or on piers extending over the Bay, such as interpretive exhibits along The Embarcadero Promenade or the Blue Greenway; – Substantial habitat removal or restoration projects (as determined by the ERO), excluding Port maintenance activities or minor improvements; or new construction or major redesign project that would include habitat removal or restoration as a component of the proposed improvements; – Projects involving substantial (as determined by the ERO) shoreline stabilization or improvement, including development of natural infrastructure (wetlands, horizontal levees, living shorelines). <p><i>Notification.</i> The San Francisco Planning Department shall distribute a notification regarding the subsequent Waterfront Plan projects and programs to the NAHC tribal representative list and others included on the department’s Native American tribal distribution, include the Association of the Ramaytush Ohlone and other Ohlone interested parties list. The</p>				

⁴ Note that the tribal notification requirements under Mitigation Measure M-TCR-1 are different than the notification requirements under Public Resources Code section 21080.3.1.

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	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>notification would be conducted during project-level environmental review of the types of subsequent projects specified above. The notification shall include a description of the subsequent project, location, anticipated depth and extent of soil disturbance necessary for construction, and information on changes to public access, removal or addition of native planting or habitat, and any proposed public interpretation as relevant; the conclusions of the preliminary archeological review regarding potential impacts to Native American archeological tribal cultural resources; anticipated next steps, including proposed archeological identification and/or treatment for archeological tribal cultural resources; an invitation to consult on the project; and a timeline for requesting consultation, which is within 30 days after receipt of a notification.</p> <p>For subsequent projects for which the planning department’s preliminary archeological review identifies potential impacts to a Native American archeological tribal cultural resource, the notification will also include the conclusions of the preliminary archeological review regarding potential impacts to Native American archeological resources, and measures proposed to address archeological impacts, as described in Section E.4, Cultural Resources.</p> <p><i>Consultation.</i> Tribal representatives who request consultation shall be afforded the opportunity to provide input on potential impacts to tribal cultural resources and measures to mitigate such impacts. The aim of consultation is to ensure that tribal representatives are afforded the opportunity to provide meaningful input into project design, to provide input into the treatment of archeological tribal cultural resources, and to appropriately acknowledge and reflect tribal cultural heritage and values in the design and siting of open space elements, plantings, and interpretive materials.</p> <p>For subsequent projects affecting Native American archeological resources, the consultation shall afford tribal representatives who respond to the notification the opportunity to provide input on potential impacts to Native American archeological resources that are tribal cultural resources, and measures to mitigate archeological impacts, including Mitigation Measures M-CR-2a, Procedures for Accidental Discovery of Archeological Resources for Projects Involving Soil Disturbance; M-CR-2b, Archeological</p>				

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<p>Monitoring; M-CR-2c, Archeological Testing; and/or M-CR-2d, Treatment of Submerged and Deeply Buried Resources, as determined applicable by the ERO as described in Section E.4. These measures in regard to archeological tribal cultural resources require that tribal representative be afforded the opportunity to consult on development of archeological investigation plans, to participate in implementation of such plans as they relate to tribal cultural resources, and to recommend that cultural resources awareness training programs for construction workers include Native American tribal representatives and specific training on the treatment of Native American archeological and tribal cultural resources, if requested. These measures also identify preservation in place, if feasible as determined by the ERO, as the preferred treatment of resources that are known or are discovered during archeological investigations or during construction and require that tribal representatives be offered the opportunity to consult on preservation in place determinations and plans, if requested. In addition, these measures require that tribal representatives be offered meaningful opportunities to participate in the development of public interpretive materials that address Native American archeological and tribal cultural resources, and that these materials include acknowledgement that the project is located on traditional Ohlone lands.</p> <p>For subsequent projects as described above, the consultation shall address potential project impacts, with the objective of incorporating feasible site design and other measures into the project consistent with Waterfront Plan policies that, based on consultation, would reduce or eliminate these impacts. Feasible site design and other measures will be included in required BCDC and Waterfront Design Advisory Committee review processes to ensure all public access and design features and improvements are cohesive and consistent with waterfront urban design policies in Port and BCDC plans.</p> <p>Site-specific measures that may be identified through consultation and are determined feasible by the ERO and the Port would be implemented by the Port or project sponsor in coordination with planning department staff. These could include, but would not be limited to:</p> <ul style="list-style-type: none"> • For subsequent projects that require pile-driving or deep foundations that extend to buried soils sensitive for Native American occupation, 				

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<p>sampling and paleoenvironmental analysis of soils that would be affected by project piles or excavation to evaluate changes to the Native American environmental setting over the 8,000-year period of their occupation of San Francisco. Data obtained through paleoenvironmental analysis may be included in interpretive exhibits, including native plantings as part of subsequent projects.</p> <ul style="list-style-type: none"> Planting and vegetation treatments in publicly accessible open spaces and community gathering areas that emphasize native and/or environmentally sustainable shoreline plants, such as those traditionally gathered and used by the Ohlone. Public interpretive exhibits, coordinated with other Port interpretive programs, subject to public review by BCDC and Waterfront Design Advisory Committee review processes, that educate the public about and/or reflect tribal cultural heritage and values and address local Native American experience and history. Such interpretation program components should be coordinated with other interpretative programs along the waterfront, to maximize and enhance the value of each interpretive effort. Public art by local Native American artists. Public access areas or ensured access to an on-site space within the subsequent project site (such as a community room) that can be made available for gathering events organized by the local Native American community, by arrangement with event space organizers. Other educational tools and applications identified by tribal representatives. <p>Different or additional project-specific mitigation measures may be identified through Native American consultation if, in consultation between the tribal representative and the ERO, they are determined to be equally as or more effective than the measures identified above in mitigating the specific impact of proposed subsequent projects upon tribal cultural resources.</p> <p>Project-specific mitigation measures applicable to the subsequent project shall be adopted by mutual agreement between the tribal consultants and the department and shall be implemented by the Port/project sponsor. Measures would be implemented during project design, construction, and</p>				

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<p>operations as relevant to ensure that impacts to the values associated with tribal cultural resources are avoided or minimized, as determined feasible by the ERO.</p> <p>The consultation process will determine whether subsequent projects would have impacts on the tribal cultural resource and, if so, the extent of impacts and feasible measures to mitigate the impacts. The ERO, Port, and project sponsor shall work with the tribal representatives to develop the scope, timeline, and method of delivery as determined by the ERO. Tribal representatives who engage in preparation or review of plans and documents shall be compensated for their work to fulfill their role in carrying out the mitigation requirements as determined through the scoping process described above.</p> <p>If no tribal group requests consultation, but the ERO nonetheless determines that the proposed project may have a potential significant adverse effect on a tribal cultural resource based on prior consultation, the ERO may require implementation of the site-specific measures and treatments listed above, as applicable.</p>				
TRANSPORTATION AND CIRCULATION				
<p>Mitigation Measure M-TR-6: Driveway and Loading Operations Plan (DLOP). Sponsors of subsequent projects that provide more than 100,000 square feet⁵ of residential or commercial uses shall prepare and implement a DLOP to reduce potential conflicts between driveway and loading operations, including passenger and freight loading activities, and people walking, bicycling, and driving, to maximize reliance of onsite loading spaces to accommodate new loading demand, and to ensure that off-site loading activity is considered in the design of new buildings.</p> <p>Applicable projects shall prepare a draft DLOP for review and approval by the planning department, in consultation with the Port and SFMTA, as part of project review and finalized prior to issuance of the first certificate of occupancy. The DLOP shall be written in accordance with any guidelines issued by the planning department.</p>	Project sponsor of subsequent projects shall prepare and implement a DLOP	Submission of a draft DLOP for review and approval by the planning department, in consultation with the Port and SFMTA, as part of subsequent project review; Finalized prior to issuance of the first certificate of occupancy	Project sponsor of subsequent projects; planning department	Considered complete upon approval of DLOP by the planning department, in consultation with the Port and SFMTA

⁵ The threshold of 100,000 square feet in this mitigation measure is consistent with planning code section 155(u), which requires implementation of a Driveway and Loading Operations Plan (DLOP) in the Central SoMa Special Use District and Van Ness & Market Residential Special Use District. Developments that provide more than 100,000 square feet are required to provide off-street loading spaces and have a greater loading demand than buildings that provide less than 100,000 square feet.

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	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>Mitigation Measure M-C-TR-4: Implement Measures to Reduce Transit Delay. Consistent with the Waterfront Plan’s new transportation policy 46 (Developing and implementing Port-wide and subarea Transportation Demand Management plans), the Port shall be responsible for preparing a South Beach subarea Transportation Demand Management (TDM) plan to reduce vehicular travel in this subarea and support use of sustainable travel modes. Strategies to reduce vehicular travel in this subarea shall include but not limited to:</p> <ul style="list-style-type: none"> • Land use/transportation coordination, such as parking demand management, SFMTA coordination, multi-modal marketing, education, and outreach programs; and • TDM requirements generally consistent with the Planning Commission’s Standards for TDM Program (TDM Program Standards) for the project sponsors of subsequent leasing and new development (development project) in this subarea that meet the applicability criteria of planning code section 169.3, TDM Program. The Planning Department shall consider applying a 10 percent greater target points requirement than that set forth in the TDM Program Standards to a development project based on if the development project would result in cumulatively considerable delay to the 10 Townsend route, and feasibility of additional TDM measures. Such TDM measures to meet the target points could include those in the TDM Program Standards, or other TDM measures determined appropriate by the SFMTA and the Planning Department. <p>The Port shall prepare the subarea TDM plan in coordination with the Planning Department and the SFMTA, and the Port shall finalize the plan for implementation within two years of the final approval and certification of the Waterfront Plan EIR or prior to City approval of subsequent leasing and new development in the subarea that meet the applicability criteria of planning code section 169.3, whichever is later. A Port-wide TDM plan that includes South Beach subarea TDM details shall satisfy this requirement.</p>	Port	Within two years of the final approval and certification of the Waterfront Plan EIR or prior to City approval of subsequent leasing and new development in the subarea that meet the applicability criteria of planning code section 169.3, whichever is later	Port shall prepare the South Beach subarea TDM plan to the planning department and SFMTA for review and approval.	Considered complete upon approval of South Beach subarea TDM plan by the planning department and the SFMTA

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
NOISE AND VIBRATION				
<p>Mitigation Measure M-NO-1: Construction Noise Control. Prior to issuance of any demolition or building permit, the project sponsor shall submit a project-specific construction noise control plan to the ERO or the ERO's designee for approval. The construction noise control plan shall be prepared by a qualified acoustical engineer, with input from the construction contractor, and include all feasible measures to reduce construction noise. The construction noise control plan shall identify noise control measures to meet a performance target of construction activities not resulting in a noise level greater than 90 dBA at noise sensitive receptors and 10 dBA above the ambient noise level at noise sensitive receptors (residences, hospitals, convalescent homes, schools, churches, hotels and motels, and sensitive wildlife habitat) <u>, or 100 dBA at commercial and industrial uses (including office, retail, commercial, and industrial uses)</u>. The project sponsor shall ensure that requirements of the construction noise control plan are included in contract specifications. If nighttime construction is required, the plan shall include specific measures to reduce nighttime construction noise. The plan shall also include measures for notifying the public of construction activities, complaint procedures, and a plan for monitoring construction noise levels in the event complaints are received. The construction noise control plan shall include the following measures to the degree feasible, or other effective measures, to reduce construction noise levels:</p> <ul style="list-style-type: none"> • Use construction equipment that is in good working order, and inspect mufflers for proper functionality; • Select "quiet" construction methods and equipment (e.g., improved mufflers, use of intake silencers, engine enclosures); • Use construction equipment with lower noise emission ratings whenever possible, particularly for air compressors; • Prohibit the idling of inactive construction equipment for more than 5 minutes; • Locate stationary noise sources (such as compressors) as far from nearby noise sensitive receptors as possible, muffle such noise sources, and construct barriers around such sources and/or the construction site; 	Project sponsor/qualified acoustical consultant/contractor	Prior to issuance of any demolition or building permit	Planning department	Considered complete after receipt of noise monitoring reports and completion of construction activities

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<ul style="list-style-type: none"> • Avoid placing stationary noise-generating equipment (e.g., generators, compressors) within noise-sensitive buffer areas (as determined by the acoustical engineer) immediately adjacent to neighbors; • Enclose or shield stationary noise sources from neighboring noise-sensitive properties with noise barriers to the extent feasible. To further reduce noise, locate stationary equipment in pit areas or excavated areas, if feasible; and • Install temporary barriers, barrier-backed sound curtains, and/or acoustical panels around working powered impact equipment and, if necessary, around the project site perimeter. When temporary barrier units are joined together, the mating surfaces shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that completely closes the gaps, and dense enough to attenuate noise. <p>The construction noise control plan shall include the following measures for notifying the public of construction activities, complaint procedures and monitoring of construction noise levels:</p> <ul style="list-style-type: none"> • Designation of an on-site construction noise manager for the project; • Notification of neighboring noise sensitive receptors within 300 feet of the project construction area at least 30 days in advance of high-intensity noise-generating activities (e.g., pier drilling, pile driving, and other activities that may generate noise levels greater than 90 dBA at noise sensitive receptors) about the estimated duration of the activity; • A sign posted on-site describing noise complaint procedures and a complaint hotline number that shall always be answered during construction; • A procedure for notifying the planning department of any noise complaints within one week of receiving a complaint; • A list of measures for responding to and tracking complaints pertaining to construction noise. Such measures may include the evaluation and implementation of additional noise controls at sensitive receptors; and • Conduct noise monitoring (measurements) at the beginning of major construction phases (e.g., demolition, grading, excavation) and during high-intensity construction activities to determine the effectiveness of 				

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<p>noise attenuation measures and, if necessary, implement additional noise control measures.</p> <p>The construction noise control plan shall include the following additional measures during pile-driving activities:</p> <ul style="list-style-type: none"> • When pile driving is to occur within 600 feet of a noise-sensitive receptor or commercial and industrial uses, implement “quiet” pile-driving technology (such as pre-drilling of piles, sonic pile drivers, auger cast-in-place, or drilled-displacement, or the use of more than one pile driver to shorten the total pile-driving duration [only if such measure is preferable to reduce impacts to sensitive receptors]) where feasible, in consideration of geotechnical and structural requirements and conditions; • Where the use of driven impact piles cannot be avoided, properly fit impact pile driving equipment with an intake and exhaust muffler and a sound-attenuating shroud, as specified by the manufacturer; and • Conduct noise monitoring (measurements) before, during, and after the pile driving activity. Pile driving noise shall be monitored to a performance target of 90 dBA at noise sensitive receptors or 100 dBA at commercial and industrial uses (including office, retail, commercial and industrial uses). 				
<p>Mitigation Measure M-NO-2a: Protection of Adjacent Buildings/Structures and Vibration Monitoring during Construction.</p> <p>Prior to issuance of any demolition or building permit, the project sponsor shall submit a project-specific Pre-construction Survey and Vibration Management and Monitoring Plan for approval to the Environmental Review Officer (ERO). The plan shall identify all feasible means to avoid damage to potentially affected buildings. The project sponsor shall ensure that the following requirements of the Pre-construction Survey and Vibration Management and Monitoring Plan are included in contract specifications, as necessary.</p> <p><i>Pre-construction Survey.</i> Prior to the start of any ground-disturbing activity, the project sponsor shall engage a consultant to undertake a pre-construction survey of potentially affected buildings. If potentially affected buildings and/or structures are not potentially historic, a structural engineer or other professional with similar qualifications shall document</p>	<p>Project sponsor, structural engineer, qualified historic preservation professional</p>	<p>Prior to issuance of demolition or building permit</p>	<p>Project sponsor, structural engineer, qualified historic preservation professional shall</p>	<p>Considered complete upon approval of the Pre-construction Survey by the planning department</p>

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<p>qualified historic preservation professional, shall establish a maximum vibration level that shall not be exceeded at each building/structure on adjacent properties, based on existing conditions, character-defining features, soil conditions, and anticipated construction practices (common standards are a peak particle velocity [PPV] of 0.25 inch per second for historic and some old buildings, a PPV of 0.3 inch per second for older residential structures, and a PPV of 0.5 inch per second for new residential structures and modern industrial/commercial buildings).</p> <ul style="list-style-type: none"> • <i>Vibration-Generating Equipment.</i> The plan shall identify all vibration-generating equipment to be used during construction (including, but not limited to: site preparation, clearing, demolition, excavation, shoring, foundation installation, and building construction). • <i>Alternative Construction Equipment and Techniques.</i> The plan shall identify potential alternative equipment and techniques that could be implemented if construction vibration levels are observed in excess of the established standard (e.g., drilled shafts [caissons] could be substituted for driven piles, if feasible, based on soil conditions, or smaller, lighter equipment could be used in some cases). • <i>Pile-Driving Requirements.</i> For projects that would require pile driving, the project sponsor shall incorporate into construction specifications for the project a requirement that the construction contractor(s) use all feasible means to avoid or reduce damage to potentially affected buildings. Such methods may include one or more of the following: <ul style="list-style-type: none"> – Incorporate “quiet” pile-driving technologies into project construction (such as drilled shafts, using sonic pile drivers, auger cast-in-place, or drilled-displacement), as feasible; and/or – Ensure appropriate excavation shoring methods to prevent the movement of adjacent structures. • <i>Buffer Distances.</i> The plan shall identify buffer distances to be maintained based on vibration levels and site constraints between the operation of vibration-generating construction equipment and the potentially affected building and/or structure to avoid damage to the extent possible. 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<ul style="list-style-type: none"> ● <i>Vibration Monitoring.</i> The plan shall identify the method and equipment for vibration monitoring to ensure that construction vibration levels do not exceed the established standards identified in the plan. <ul style="list-style-type: none"> – Should construction vibration levels be observed in excess of the standards established in the plan, the contractor(s) shall halt construction and put alternative construction techniques identified in the plan into practice, to the extent feasible. – The qualified historic preservation professional (for effects on historic buildings and/or structures) and/or structural engineer (for effects on historic and non-historic buildings and/or structures) shall inspect each affected building and/or structure (as allowed by property owners) in the event the construction activities exceed the vibration levels identified in the plan. – The structural engineer and/or historic preservation professional shall submit monthly reports to the ERO during vibration-inducing activity periods that identify and summarize any vibration level exceedances and describe the actions taken to reduce vibration. – If vibration has damaged nearby buildings and/or structures that are not historic, the structural engineer shall immediately notify the ERO and prepare a damage report documenting the features of the building and/or structure that has been damaged. – If vibration has damaged nearby buildings and/or structures that are historic, the historic preservation consultant shall immediately notify the ERO and prepare a damage report documenting the features of the building and/or structure that has been damaged. – Following incorporation of the alternative construction techniques and/or planning department review of the damage report, vibration monitoring shall recommence to ensure that vibration levels at each affected building and/or structure on adjacent properties are not exceeded. ● <i>Periodic Inspections.</i> The plan shall identify the intervals and parties responsible for periodic inspections. The qualified historic preservation professional (for effects on historic buildings and/or structures) and/or structural engineer (for effects on historic and non-historic buildings and/or structures) shall conduct regular periodic inspections of each 				

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<p>affected building and/or structure on adjacent properties (as allowed by property owners) during vibration-generating construction activity on the project site. The plan will specify how often inspections shall occur.</p> <ul style="list-style-type: none"> • <i>Repair Damage.</i> The plan shall also identify provisions to be followed should damage to any building and/or structure occur due to construction-related vibration. The building(s) and/or structure(s) shall be remediated to their pre-construction condition (as allowed by property owners) at the conclusion of vibration-generating activity on the site. For historic resources, should damage occur to any building and/or structure, the building and/or structure shall be restored to its pre-construction condition in consultation with the qualified historic preservation professional and planning department preservation staff. • <i>Vibration Monitoring Results Report.</i> After construction is complete the project sponsor shall submit a final report from the qualified historic preservation professional (for effects on historic buildings and/or structures) and/or structural engineer (for effects on historic and non-historic buildings and/or structures). The report shall include, at a minimum, collected monitoring records, building and/or structure condition summaries, descriptions of all instances of vibration level exceedance, identification of damage incurred due to vibration, and corrective actions taken to restore damaged buildings and structures. The ERO shall review and approve the Vibration Monitoring Results Report. 	Project sponsor, historic preservation professional, and/or structural engineer	Following end of construction activities	Project sponsor, historic preservation professional, and/or structural engineer shall submit a Vibration Monitoring Results Report to the ERO.	Considered complete after approval of the Vibration Monitoring Results Report by the ERO
<p>Mitigation Measure M-NO-2b: Protection of Vibration-Sensitive Equipment during Construction. Prior to construction, the project sponsor shall designate and make available a community liaison to respond to vibration complaints from building occupants of adjacent recording and TV studios within a minimum of 225 feet of the project site. Contact information for the community liaison shall be posted in a conspicuous location so that it is clearly visible to building occupants most likely to be disturbed. Through the community liaison, the project sponsor team shall provide notification to property owners and occupants of recording and TV studios at least 10 days prior to construction activities involving equipment that can generate vibration capable of interfering</p>	Project sponsor and designated community liaison	10 days prior to construction	Project sponsor and designated community liaison shall provide notification to property owners and occupants of recording and TV studios.	Considered complete upon end of construction

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<p>with vibration-sensitive equipment, informing them of the estimated start date and duration of vibration-generating construction activities. Equipment types capable of generating such vibration include a vibratory roller, large bulldozer, or similar equipment, operating within 225 feet of the building. If feasible, the project sponsor team shall identify potential alternative equipment and techniques that could reduce construction vibration levels. For example, alternative equipment and techniques may include use of static rollers instead of vibratory rollers.</p> <p>If concerns prior to construction or complaints during construction related to equipment interference are identified, the community liaison shall work with the project sponsor team and the affected building occupants to resolve the concerns such that the vibration control measures would meet a performance target of the 65 VdB vibration level for vibration-sensitive equipment, as set forth by Federal Transit Administration. To resolve concerns raised by building occupants, the community liaison shall convey the details of the complaint(s) to the project sponsor team, such as who shall implement specific measures to ensure that the project construction meets the performance target of 65 VdB vibration level for vibration-sensitive equipment. The community liaison would then notify building occupants of the measures to be implemented. These measures may include evaluation by a qualified noise and vibration consultant, scheduling certain construction activities outside the hours of operation or recording periods of specific vibration-sensitive equipment if feasible, and/or conducting groundborne vibration monitoring to document that the project can meet the performance target of 65 VdB at specific distances and/or locations. Groundborne vibration monitoring, if appropriate to resolve concerns, shall be conducted by a qualified noise and vibration consultant.</p>				
<p>Mitigation Measure M-NO-3: Noise Analysis and Attenuation. A noise analysis shall be required for new development that includes noise-generating activities or equipment (e.g., heating, ventilation, and air-conditioning equipment; outdoor gathering areas; places of entertainment) when proposed within 900 feet and with direct line-of-sight to noise sensitive receptors. This analysis shall be conducted prior to the first project approval action.</p>	Project sponsor and qualified acoustic and/or engineering professional	Prior to first project approval action	Project sponsor and qualified acoustic and/or engineering professional shall prepare and submit noise analysis to the planning department.	Considered complete upon approval of noise analysis by the planning department and incorporation of identified noise reduction measures into the building

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<p>This analysis shall include, a site survey to identify potential noise-sensitive uses and include at least one 24-hour noise measurement to determine ambient noise levels throughout the day and nighttime hours. The analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and shall demonstrate with reasonable certainty that the proposed use would not adversely affect nearby noise-sensitive uses, would not substantially increase ambient noise levels, and would not result in a noise level in excess of any applicable standards, such as those in section 2909 of the noise ordinance. All recommendations from the acoustical analysis necessary to ensure that noise sources would meet applicable requirements of the noise ordinance and/or not result in substantial increases in ambient noise levels shall be incorporated into the building design and operations. Should concerns remain regarding potential excessive noise, completion of a detailed noise control analysis (by a person qualified in acoustical analysis and/or engineering), and incorporation of noise reduction measures (including quieter equipment, construction of barriers or enclosures, etc.) into the building design and operations prior to the first project approval action may be required.</p>				design and operations
AIR QUALITY				
<p>Mitigation Measure M-AQ-3a: Clean Construction Equipment. The project sponsor shall submit a construction emissions minimization plan to the Port Chief Harbor Engineer, who will then notify the Port Environmental Regulatory Compliance staff and an Environmental Planning Air Quality Specialist for review and approval.</p> <p>The construction emissions minimization plan shall apply to all off-road and in-water marine equipment operating for more than 20 total hours over the entire duration of construction activities. The plan shall detail project compliance with the following requirements as necessary:</p> <ol style="list-style-type: none"> 1. All off-road equipment greater than 25 horsepower shall meet the following requirements: <ol style="list-style-type: none"> a) Where access to grid-powered electricity is reasonably available, portable diesel engines shall be prohibited and electric engines shall be used for concrete/industrial saws, sweepers/scrubbers, aerial lifts, welders, air compressors, fixed cranes, forklifts, and cement and mortar mixers, pressure washers, and pumps. If grid 	Project sponsor	Prior to construction activities requiring the use of off-road and in-water marine equipment	Project sponsor shall submit construction emissions minimization plan to the Port Chief Harbor Engineer.	Considered complete upon approval of construction emissions minimization plan by the Port Chief Harbor Engineer, Port Environmental Regulatory Compliance staff, and Environmental Planning Air Quality Specialist

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<p>electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand;</p> <p>b) All other off-road equipment shall have engines that meet or exceed either U.S. Environmental Protection Agency (U.S. EPA) or California Air Resources Board (CARB) Tier 4 Interim or Final off-road emission standards;</p> <p>2. All in-water marine equipment greater than 100 horsepower shall have engines that meet or exceed U.S. EPA or CARB Tier 3 Marine Engine emission standards;</p> <p>3. Any other best available technology that reduces emissions offered at the time that future projects are reviewed may be included in the construction emissions minimization plan (e.g., alternative fuel sources, etc.).</p> <p>4. Exceptions to requirements 1 and 2 above may be granted if the project sponsor has submitted information providing evidence that meeting the requirement (1) is technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, or (3) there is a compelling emergency need to use equipment that to not meet the engine standards and the sponsor has submitted documentation that the requirements of this exception provision apply. In seeking an exception, the project sponsor shall demonstrate that the project will use the cleanest piece of construction equipment available and feasible and strive to meet a performance standard of average construction emissions of ROG, NOx, PM_{2.5} below 54 lbs/day, and PM₁₀ emissions below 82 lbs/day.</p> <p>5. The project sponsor shall 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 off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the 2-minute idling limit.</p>				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>6. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.</p> <p>7. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road and marine equipment required for every construction phase. Off-road and marine equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and type, and hours of operation.</p> <p>8. The construction emissions minimization plan shall be kept on site and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the plan and a way to request a copy of the plan. The project sponsor shall provide copies of the construction emissions minimization plan as requested.</p>				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>9. <i>Reporting.</i> Biannual reports shall be submitted to the Port Chief Harbor Engineer and Port Environmental Regulatory Compliance staff, in addition to an Environmental Planning Air Quality Specialist for review, indicating the construction phase and equipment information used during each phase including the information required in requirement 7, above.</p> <p>Within six months of the completion of construction activities, the project sponsor shall submit to the Port Chief Harbor Engineer and Port Environmental Regulatory Compliance staff, in addition to an Environmental Planning Air Quality Specialist for review, a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in requirement 7.</p>	Project sponsor	Biannually and within six months of completion of construction activities	Project sponsor shall submit biannual reports to the Port Chief Harbor Engineer, Port Environmental Regulatory Compliance staff, and Environmental Planning Air Quality Specialist.	Considered complete upon approval of biannual reports and final report by the Port Chief Harbor Engineer, Port Environmental Regulatory Compliance staff, and Environmental Planning Air Quality Specialist
<p>10. <i>Certification Statement and On-Site Requirements.</i> Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.</p>	Project sponsor	Prior to construction activities requiring the use of off-road and in-water marine equipment	Project sponsor shall submit certification station.	Considered complete upon receipt of certification statement by the Port Chief Harbor Engineer, Port Environmental Regulatory Compliance staff, and Environmental Planning Air Quality Specialist
<p>Mitigation Measure M-AQ-3b: Super-Compliant VOC Architectural Coatings during Construction. The project sponsor shall use super-compliant VOC architectural coatings during construction for all interior spaces and shall include this requirement on plans submitted for review by the Port engineering division. “Super-Compliant” refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District rule 1113, which requires a limit of 10 grams VOC per liter (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings).</p>	Project sponsor	Prior to and during construction	Project sponsor shall submit plans requiring the use of super compliant VOC architectural coatings to the Port engineering division.	Considered complete upon approval of plans by the Port engineering division

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	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>Mitigation Measure M-AQ-4a: Educate Residential and Commercial Tenants Concerning Low-VOC Consumer Products. Prior to receipt of any building permit and every 5 years thereafter, the project sponsor shall develop electronic correspondence to be distributed by email or posted on site annually to tenants of the project that encourages the purchase of consumer products and paints that are better for the environment and generate less volatile organic compound emissions. The correspondence shall encourage environmentally preferable purchasing and shall include contact information and links to SF Approved (https://www.sfapproved.org/).</p>	Project sponsor	Prior to receipt of any building permit and every 5 years thereafter	Project sponsor shall distribute correspondence to tenants of the project.	Ongoing
<p>Mitigation Measure M-AQ-4b: Reduce Operational Emissions. Subsequent projects shall implement the following additional measures to reduce operational criteria air pollutant emissions:</p> <ol style="list-style-type: none"> 1. For any proposed refrigerated warehouses or large (greater than 20,000 square feet) retailers, provide electrical hook-ups for diesel trucks with Transportation Refrigeration Units (TRU) at the loading docks. 2. Encourage the use of trucks equipped with TRUs that meet U.S. Environmental Protection Agency Tier 4 emission standards. 3. Prohibit TRUs from operating at loading docks for more than 30 minutes by posting signs at each loading dock presenting this TRU limit. 4. All newly constructed loading docks that are on a commercial or industrial property, and can accommodate trucks with TRUs shall be equipped with electric vehicle (EV) charging equipment for heavy-duty trucks. This measure does not apply to temporary street parking for loading or unloading. 5. Require that all future tenants have a plan to convert their vehicle fleet(s) to zero emission vehicles (ZEVs) no later than 2040. This would be a condition of all leases at the project site. 6. Prohibit trucks from idling for more than 2 minutes by posting “no idling” signs at the site entry point, at all loading locations, and throughout the project site. 7. Use super-compliant VOC architectural coatings in maintaining buildings. “Super-Compliant” refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management 	Project sponsor	Prior to issuance of building permits (for items that can be shown on plans) and during operations, as necessary	Project sponsor shall submit plans demonstrating compliance for those items that can be shown on plans and shall implement measures to reduce operational criteria air pollutant emissions.	Prior to building permit approval, as necessary, and ongoing

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<p>District rule 1113, which requires a limit of 10 grams VOC per liter (http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings).</p> <p>8. Other measures that become available and are shown to effectively reduce criteria air pollutant emissions on site or off site if emission reductions are realized within the air basin. Measures to reduce emissions on site are preferable to off-site emissions reductions.</p>				
<p>Mitigation Measure M-AQ-4c: Best Available Control Technology for Projects with Diesel Generators and Fire Pumps. The project applicant shall implement the following measures. These features shall be submitted to the Port Chief Harbor Engineer and Port Environmental Regulatory Compliance staff, in addition to an Environmental Planning Air Quality Specialist for review and approval, and shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the San Francisco Planning Department prior to the issuance of any building permits:</p> <ol style="list-style-type: none"> 1. All diesel generators and fire pumps shall have engines that meet or exceed California Air Resources Board Tier 4 Final emission standards (California Code of Regulations title 13, section 2423). 2. Non-diesel-fueled emergency generator technology (e.g., battery technology) shall be installed if it is commercially available, subject to the review and approval of the City fire department for safety purposes, and is demonstrated to reduce criteria pollutant emissions. 3. Permanent stationary emergency diesel backup generators shall have an annual maintenance testing limit of 20 hours, subject to any further restrictions as may be imposed by Bay Area Air Quality Management District (air district) in its permitting process. Additional restrictions limiting the hours per year that generators may be tested may also be required, as determined necessary by the San Francisco Planning Department. 4. For each new diesel backup generator or fire pump permit submitted for a project, including any associated generator pads, engine specifications shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator or fire pump from the Port Chief Harbor Engineer. Once 	Project sponsor	Prior to issuance of building permits	Project sponsor shall submit project drawings or other documentation showing best available control technology features to the Port Chief Harbor Engineer, Port Environmental Regulatory Compliance staff, and Environmental Planning Air Quality Specialist.	Considered complete upon approval of project drawings or other documentation by Port Chief Harbor Engineer, Port Environmental Regulatory Compliance staff, and Environmental Planning Air Quality Specialist

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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 or fire pumps shall be required to be consistent with these emissions specifications. The operator of the facility at which the generator or fire pump is located shall maintain records of the testing schedule for each diesel backup generator and fire pump for the life of that diesel backup generator and fire pump and provide this information for review to the planning department within three months of requesting such information.				
Mitigation Measure M-AQ-4d: Electric Vehicle Charging. Prior to the issuance of the building’s final certificate of occupancy, the project applicant shall demonstrate that at least 15 percent of all parking spaces are equipped with electric vehicle (EV) charging equipment. The installation of all EV charging equipment shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City.	Project sponsor	Prior to issuance of building permit, sponsor to submit plans or other documentation demonstrating compliance; prior to issuance of the building’s final certificate of occupancy project sponsor to verify compliance	Project sponsor shall provide documentation of EV charging equipment on project drawings to the Department of Building Inspection or Port Building Inspector, as applicable.	Considered complete upon approval of project drawings by the Department of Building Inspection or Port Building Inspector, as applicable
Mitigation Measure M-AQ-5a: Design Land Use Buffers around Active Loading Docks. For subsequent projects that include newly constructed loading docks that are on a commercial or industrial property, especially in the Pier 94 Backlands in the Southern Waterfront subarea, that would be expected to accommodate more than 100 trucks per day (or 40 transportation refrigeration trucks per day), locate truck activity areas, including loading docks and delivery areas, as far away from sensitive receptors (such as residences, child care, or medical facilities) as feasible.	Project sponsor	Prior to issuance of construction permits	Project sponsor shall locate loading docks away from sensitive receptors.	Considered complete upon approval of building plans by the Department of Building Inspection or Port Building Inspector, as applicable

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<p>Mitigation Measure M-AQ-5b: Reduce Exposure to Toxic Air Contaminants. The project applicant shall incorporate the following health risk reduction measures into the project design, as feasible. These features shall be included on the project drawings submitted for the construction-related permit(s) or on other documentation submitted to the City:</p> <ul style="list-style-type: none"> Plant trees and/or vegetation between sensitive receptors and the project’s operational source(s) of TACs, if feasible. In addition, plant trees and/or vegetation between sensitive receptors and existing sources of toxic air contaminants, if feasible. Locally native trees that provide suitable trapping of particulate matter are preferred (redwood, deodar cedar, oak, and oleander).⁶ 	Project sponsor	Prior to issuance of construction permits	Project sponsor shall include health risk reduction measures on project designs and submit to the Department of Building Inspection, or Port Building Inspector, as applicable.	Considered complete upon approval of project drawings by the Department of Building Inspection, or Port Building Inspector, as applicable
<p>Mitigation Measure M-AQ-5c: Implement a Truck Route Plan. For subsequent projects that include construction of loading docks on a commercial or industrial property and that are found to result in significant health risk impacts, the project sponsor shall develop a Truck Route Plan that establishes operational truck routes to avoid sensitive receptors as identified in the environmental review analysis completed for the project. The purpose of the Truck Route Plan is to route trucks on streets that are located as far from offsite sensitive receptors as possible, while still maintaining the operational goals of the project. The Truck Route Plan must include route restrictions, truck calming, truck parking, and truck delivery restrictions to minimize exposure of nearby sensitive receptors to truck exhaust and fugitive particulate emissions.</p> <p>Prior to the commencement of operational activities, the project sponsor shall certify (1) compliance with the Truck Route Plan, and (2) all applicable requirements of the Truck Route Plan have been incorporated into tenant contract specifications.</p>	Project sponsor	Prior to operation	Project sponsor shall submit a Truck Route Plan to the planning department for approval. Project sponsor shall also submit affidavit of compliance with the plan and that applicable requirements of the plan are incorporated into contract specification.	Considered complete upon approval of the Truck Route Plan by the planning department and receipt of affidavit from project sponsor

⁶ Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Page 5-17.

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WIND				
<p>Mitigation Measure M-WI-1a: Wind Analysis and Minimization Measures for Subsequent Projects. All projects proposed within the Plan Area that would have a height greater than 85 feet shall be evaluated by a qualified wind expert, in consultation with the San Francisco Planning Department, to determine their potential to result in a new wind hazard exceedance or aggravate an existing wind hazard exceedance (defined as the one-hour wind hazard criterion with a 26 mph equivalent wind speed). If the qualified expert determines that wind-tunnel testing is required due to the potential for a new or worsened wind hazard exceedance, such testing shall be undertaken in coordination with San Francisco Planning Department staff, with results summarized in a wind tunnel report. The buildings tested in the wind tunnel shall incorporate only those wind baffling features that can be shown on plans. Such features must be tested in the wind tunnel and discussed in the wind tunnel report in the order of preference discussed below, with the overall intent being to reduce ground-level wind speeds in areas of substantial use by people walking (e.g., sidewalks, plazas, building entries, etc.):</p> <ol style="list-style-type: none"> <i>Building Massing.</i> New buildings and additions to existing buildings shall be shaped to minimize ground-level wind speeds. Examples of these include setbacks and/or podiums, stepped and/or curved facades, and vertical steps in the massing to help disrupt downwashing flows. <i>Wind Baffling Measures on the Building and on the Project Sponsor's Private Property.</i> Wind baffling measures shall be included on future buildings and/or on the parcel(s) to disrupt vertical wind flows along tower façades and through the project site. Examples of these may include staggered balcony arrangements on main tower façades, screens, canopies, and/or fins attached to the buildings, covered walkways, colonnades, large-scale art features, landscaping, free standing canopies, and/or wind screens. Solid windscreens have a greater effect at reducing the wind speeds to immediate leeward side of the screens; however, outside of this area of influence, the winds are either unaffected or accelerated. Porous windscreens have less of an impact to the immediate leeward side; however, they have an 	Project sponsor and qualified wind expert	Prior to issuance of construction permits	Project sponsor and qualified wind expert to submit wind analysis to the planning department.	Considered complete upon approval of the wind report

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<p>increased area of influence and are less likely to cause any accelerations of the winds further downwind.</p> <p>Only after documenting all feasible attempts to reduce wind impacts via building massing and wind baffling measures on a building, shall the following be considered:</p> <p>3. <i>Landscaping and/or Wind Baffling Measures in the Public Right-of-Way.</i> Landscaping and/or wind baffling measures shall be installed to slow winds along sidewalks and protect places where people walking are expected to gather or linger. Landscaping and/or wind baffling measures shall be installed on the windward side of the areas of concern (i.e., the direction from which the wind is blowing). Landscaping typically affects winds locally; the larger the tree crown and canopy, the greater the area of influence. Tall, slender trees with little foliage have little to no impact on local winds speeds at ground level because of the height of the foliage above ground. Shorter street trees with larger canopies help reduce winds around them but their influence on conditions farther away is limited. Examples of wind baffling measures may include street art to provide a sheltered area for people to walk and free-standing canopies and wind screens in areas where people walking are expected to gather or linger. If landscaping or wind baffling measures are required as one of the features to mitigate wind impacts, Mitigation Measure M-WS-1b (below) shall also apply:</p>				
<p>Mitigation Measure M-WI-1b: Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way. If it is determined that a subsequent project could not reduce additional wind hazards via massing or wind baffling measures on the subject building or the developer's property and therefore landscaping and/or wind baffling features are to be installed in the public right-of-way, the project sponsor for the subsequent project shall prepare a maintenance plan for review and approval by the San Francisco Planning Department to ensure maintenance of the features in perpetuity.</p>	Project sponsor	Prior to issuance of construction permits	Project sponsor shall submit a maintenance plan to the planning department for review and approval.	Considered complete upon approval of the maintenance plan

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BIOLOGICAL RESOURCES				
<p>Mitigation Measure M-BI-1a: 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 where buildings, bridges, landscaping/street trees, natural vegetation or shoreline habitats are present prior to the start of work. The WEAP training shall generally include, but not be limited to, education about the following:</p> <ul style="list-style-type: none"> • Applicable state and federal laws, environmental regulations, project permit conditions, and penalties for non-compliance. • Special-status plant and animal species with the potential to be encountered on or in the vicinity of the project area during construction. • Avoidance measures and a protocol for encountering special-status species including a communication chain. • Preconstruction surveys and biological monitoring requirements associated with each phase of work and at specific locations within the project area (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. • 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. 	Project sponsor, qualified biologist, construction contractor(s)	Prior to construction	Project sponsor and qualified biologist shall develop WEAP training.	Considered complete at end of construction
<p>Mitigation Measure M-BI-1b: Special-Status Plant Species Surveys. Botanical surveys shall be conducted where construction, demolition, site access, materials staging, or spoils piles are planned within coastal saltmarsh, coastal scrub, or coastal dunes, or within 50 feet of these habitats. Surveys will follow CDFW's <i>Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities</i> (CDFG 2009). Surveys shall maximize the likelihood of locating special-status species, be floristic in nature, include areas of potential indirect impacts, be conducted in the field at the time of year when species are both evident and identifiable, and be replicated and spaced throughout the growing season to accurately determine what</p>	Project sponsor, qualified biologist, construction contractor(s), Port	Prior to and during construction	Qualified biologist to conduct surveys prior to construction. Coordinate with the Port, USFWS, and/or CDFW as applicable if special-status plants are encountered.	Considered complete at end of construction

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<p>plants exist on the site. If no special-status plants are identified, no further action is required to avoid or minimize impacts to these species.</p> <p>If special-status plants are encountered in the work area, they should be avoided. If they cannot be avoided, the Port shall, in coordination with USFWS and/or CDFW (as applicable based on plant status), avoid plants through project design, protect plants from construction activities through the use of exclusion fencing and signage, or minimize impacts to plant populations, relocate plants to other suitable habitat nearby, or harvest seed, as appropriate to the particular species.</p> <p>Prior to construction, staging areas shall be identified that avoid impacts to special-status plants identified, and construction exclusion fencing shall be used to define the work area and minimize disturbance to these areas. The fencing shall be maintained through the construction phase and monitored on a weekly basis during construction to ensure protection of special-status plants and their habitat.</p> <p>If avoidance is not feasible, rare plants and their seeds shall be salvaged and relocated, and habitat restoration shall be provided to replace any destroyed special-status plant occurrences at a minimum 1:1 ratio (i.e., no net loss) or as specified by resource agencies based on area of lost habitat. Compensation for loss of special-status plant populations shall include the restoration or enhancement of temporarily impacted areas, and management of restored areas. Restoration or reintroduction shall be located on-site where feasible. At a minimum, the restoration areas shall meet the following performance standards by the fifth year:</p> <ol style="list-style-type: none"> The compensation area shall be at least the same size as the impact area. Vegetation cover and composition in special-status plant restoration areas shall emulate existing reference populations. Monitoring shall demonstrate the continued presence of rare plants in the restoration area. Invasive species cover shall be less than or equal to the invasive species cover in the impact area. <p>Additionally, restored populations shall have greater than the number of individuals of the impacted population, in an area greater than or equal to the size of the impacted population, for at least 3 consecutive years</p>				

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	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
without irrigation, weeding, or other manipulation of the restoration site. The Habitat Monitoring Plan to be prepared in accordance with Mitigation Measure M-BI-4, Avoidance of Pickleweed Mat Sensitive Natural Community, shall include the above monitoring requirements and success criteria.				
<p>Mitigation Measure M-BI-2a: Nesting Bird Protection Measures.</p> <p>Mitigation Measure M-BI-2a applies to new development projects that include removal of trees or vegetation, major tree trimming, demolition of buildings, or use of heavy equipment (e.g., earthwork, demolition) that could disturb nests or nesting birds. Nesting birds and their nests shall be protected during construction by use of the following measures:</p> <ol style="list-style-type: none"> 1. A qualified wildlife biologist shall conduct pre-construction nesting surveys during the avian nesting breeding season (approximately February 15 to September 15) within 7 days prior to construction. Surveys shall be performed for the project area, vehicle and equipment staging areas, and suitable habitat within 250 feet to locate any active passerine (perching bird) nests and within 500 feet to locate any active raptor (bird of prey) nests. 2. If active nests are located during the pre-construction nesting bird surveys, the qualified wildlife biologist shall evaluate if the schedule of construction activities could affect the active nests and the following measures shall be implemented based on their determination: <ol style="list-style-type: none"> a. If construction is not likely to affect the active nest, construction may proceed without restriction. b. If it is determined that construction may affect the active nest, the qualified biologist shall establish a no-disturbance buffer around the nest(s) and all project work would halt within the buffer until a qualified biologist determines the nest is no longer in use. Typically, these buffer distances are up to 250 feet for passerines and 500 feet for raptors; however, the buffers may be adjusted downward for some species, or if an obstruction, such as a building, is within line-of-sight between the nest and construction activities. c. Modifying nest buffer distances, allowing certain construction activities within the buffer, and/or modifying construction methods in proximity to active nests shall be done at the discretion of the qualified biologist and in coordination with the Port. Necessary 	Project sponsor, qualified biologist, CDFW	Pre-construction surveys during the avian nesting breeding season would occur within 7 days prior to the start of construction; implementation ongoing during construction if active nests are observed	Qualified biologist in coordination with the Port if active nests are observed.	Ongoing during construction if active nests are observed

Adopted Mitigation Measure	Monitoring and Reporting Program ⁸			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>activities that could be trimmed or removed for subsequent projects under the Waterfront Plan:</p> <ol style="list-style-type: none"> 1. 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.⁸ 2. 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. 3. If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition and relocation or tree work, 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. 4. 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. 5. 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 				

⁸ Torpor refers to a state of decreased physiological activity with reduced body temperature and metabolic rate.

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.</p> <p>6. 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, 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.</p> <p>7. 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).</p> <p>a. 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.</p> <p>b. 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).</p> <p>c. 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.</p>				
<p>Mitigation Measure M-BI-3: Fish and Marine Mammal Protection during Pile Driving. If required by the National Marine Fisheries Service (NMFS), a sound attenuation monitoring plan shall be prepared to reduce impacts to fish and marine mammals. The plan shall incorporate the following best management practices subject to modification in the NMFS-approved plan:</p> <ul style="list-style-type: none"> In-water pile driving shall be conducted within the established environmental work window between June 1 and November 30, designed to avoid potential impacts to fish species. 	Project sponsor	Sound attenuation monitoring plan prior to the start of construction; plan shall be implemented during construction	Project sponsor shall prepare and submit a sound attenuation monitoring plan to the Port and planning department for review and approval.	Considered complete at end of construction

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<ul style="list-style-type: none"> • To the extent feasible vibratory pile drivers shall be used for the installation of all support piles. Vibratory pile driving shall be conducted following the U.S. Army Corps of Engineers “Proposed Procedures for Permitting Projects that will Not Adversely Affect Selected Listed Species in California.” U.S. Fish and Wildlife Service and NMFS completed section 7 consultation on this document, which establishes general procedures for minimizing impacts to natural resources associated with projects in or adjacent to jurisdictional waters. • A soft start technique to impact hammer pile driving shall be implemented, at the start of each work day or after a break in impact hammer driving of 30 minutes or more, to give fish and marine mammals an opportunity to vacate the area. • If during the use of an impact hammer, established NMFS pile driving thresholds are exceeded, a bubble curtain or other sound attenuation method as described in the NMFS-approved sound attenuation monitoring plan shall be utilized to reduce sound levels below the criteria described above. If NMFS sound level criteria are still exceeded with the use of attenuation methods, a NMFS-approved biological monitor shall be available to conduct surveys before and during pile driving to inspect the work zone and adjacent waters for marine mammals. The monitor shall be present as specified by the NMFS during impact pile driving and ensure that: <ul style="list-style-type: none"> – The safety zones established in the sound monitoring plan for the protection of marine mammals are maintained. – Work activities are halted when a marine mammal enters a safety zone and resumed only after the animal has been gone from the area for a minimum of 15 minutes. • 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 shall comply with NOAA recommendations and/or requirements. 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>Mitigation Measure M-BI-4: Avoidance of Pickleweed Mat Sensitive Natural Community. Prior to the start of construction in any area where a pickleweed mat community exists, the Port shall consult with the Planning Department to determine whether this mitigation measure shall be implemented as presented, or modified based on site and construction details of the subsequent project. The Port shall retain a qualified biologist (i.e., a biologist experienced at identifying coastal saltmarsh vegetation) to clearly delineate the extent of pickleweed mat community within 20 feet of the project work area. Pickleweed mat shall be protected from the work area by environmentally sensitive area fencing, which shall be maintained throughout the construction period. A qualified biologist shall oversee the delineation and installation of fencing. Excavation, vehicular traffic, staging of materials, and all other project-related activity shall be located outside of the environmentally sensitive area.</p> <p>If the pickleweed mat community cannot be avoided, any temporarily affected areas shall be restored to pre-construction conditions or better at the conclusion of construction activities that occur within 20 feet of the retained pickleweed mat in accordance with CDFW and regional board permits. Compensation for permanent impacts on the sensitive natural community shall be provided at a 1:1 or greater ratio, or as specified by USACE, regional board, and/or CDFW. If impacts to prior mitigation sites occur, resource agencies may require a greater ratio (e.g., 2:1 or higher). Compensation for loss of pickleweed mat may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. To that end, the restoration sites shall, at a minimum, meet the following performance standards by the fifth year after restoration:</p> <ol style="list-style-type: none"> 1. Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area. 2. No more cover by invasive species shall be present than in the baseline/impact area. <p>Restoration shall be detailed in a Habitat Mitigation and Monitoring Plan, which shall be developed before the start of construction and in coordination with permit applications and/or conditions. At a minimum, the Plan shall include:</p>	<p>Port, qualified biologist, and construction contractor(s)</p>	<p>Prior to construction</p>	<p>Port to consult with the planning department to determine whether to implement the measure or modify based on site and construction details.</p>	<p>Considered complete at end of construction</p>
<p>If the pickleweed mat community cannot be avoided, any temporarily affected areas shall be restored to pre-construction conditions or better at the conclusion of construction activities that occur within 20 feet of the retained pickleweed mat in accordance with CDFW and regional board permits. Compensation for permanent impacts on the sensitive natural community shall be provided at a 1:1 or greater ratio, or as specified by USACE, regional board, and/or CDFW. If impacts to prior mitigation sites occur, resource agencies may require a greater ratio (e.g., 2:1 or higher). Compensation for loss of pickleweed mat may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. To that end, the restoration sites shall, at a minimum, meet the following performance standards by the fifth year after restoration:</p> <ol style="list-style-type: none"> 1. Native vegetation cover shall be at least 70 percent of the baseline native vegetation cover in the impact area. 2. No more cover by invasive species shall be present than in the baseline/impact area. <p>Restoration shall be detailed in a Habitat Mitigation and Monitoring Plan, which shall be developed before the start of construction and in coordination with permit applications and/or conditions. At a minimum, the Plan shall include:</p>	<p>Port, qualified biologist, and construction contractor(s)</p>	<p>Prior to and during construction</p>	<p>Port and qualified biologist to consult with CDFW, RWQCB, and/or USACE as appropriate.</p>	<p>Considered complete upon approval of the Habitat Mitigation and Monitoring Plan by CDFW, RWQCB, and/or USACE</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<ol style="list-style-type: none"> 1. Name and contact information for the property owner of the land on which the mitigation will take place; 2. Identification of the water source for supplemental irrigation, if needed; 3. Identification of depth to groundwater; 4. Topsoil salvage and storage methods for areas that support special-status plants; 5. Site preparation guidelines to prepare for planting, including coarse and fine grading; 6. Plant material procurement, including assessment of the risk of introduction of plant pathogens through the use of nursery-grown container stock vs. collection and propagation of site-specific plant materials, or use of seeds; 7. A planting plan outlining species selection, planting locations, and spacing for each vegetation type to be restored; 8. Planting methods, including containers, hydroseed or hydromulch, weed barriers, and cages, as needed; 9. Soil amendment recommendations, if needed; 10. An irrigation plan, with proposed rates (in gallons per minute), schedule (i.e., recurrence interval), and seasonal guidelines for watering; 11. A site protection plan to prevent unauthorized access, accidental damage, and vandalism; 12. Weeding and other vegetation maintenance tasks and schedule, with specific thresholds for acceptance of invasive species; 13. Performance standards by which successful completion of mitigation can be assessed relative to a relevant baseline or reference site, and by which remedial actions will be triggered; 14. Success criteria that shall include the minimum performance standards described above; 15. Monitoring methods and schedule; 16. Reporting requirements and schedule (e.g., annual reporting); 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>17. Adaptive management and corrective actions to achieve the established success criteria; and</p> <p>18. An educational outreach program to inform operations and maintenance departments of local land management and utility agencies of the mitigation purpose of restored areas to prevent accidental damages.</p> <p>The Habitat Mitigation and Monitoring Plan and all field documentation, prepared in coordination with the appropriate regulatory agencies, shall be submitted to a designee from the Port for review and approval prior to the issuance of any demolition, grading, or building permit for construction that would occur within 20 feet of the pickleweed mat sensitive natural community.</p>				
<p>Mitigation Measure M-BI-6: Avoidance of Impacts on Wetlands and Waters. The Port and its contractors for the specific construction activity to be undertaken shall minimize impacts on waters of the United States and waters of the state, including wetlands, by implementing the following measures:</p> <ul style="list-style-type: none"> • The proposed project shall be designed to avoid, to the extent practical, work within wetlands and/or waters under the jurisdiction of USACE, regional board, and CDFW. If applicable, permits or approvals shall be sought from the above agencies, as required. Where wetlands or other water features must be disturbed, the minimum area of disturbance necessary for construction shall be identified and the area outside avoided. • Before the start of construction within 50 feet of any wetlands and drainages, appropriate measures shall be taken to ensure protection of the wetland from construction runoff or direct impact from equipment or materials, such as the installation of a silt fence, and signs indicating the required avoidance shall be installed. No equipment mobilization, grading, clearing, or storage of equipment or machinery, or similar activity, shall occur until a qualified biologist has inspected and approved the fencing installed around these features. The construction contractor for the specific construction activity to be undertaken shall ensure that the temporary fencing is maintained until construction activities are complete. No construction activities, including equipment 	Port and contractor(s)	Prior to construction	Port and contractor(s) shall design projects to avoid wetlands and waters and implement measures within 50 feet.	Considered complete at end of construction

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>movement, storage of materials, or temporary spoils stockpiling, shall be allowed within the fenced areas protecting wetlands.</p> <ul style="list-style-type: none"> Where disturbance to jurisdictional wetlands or waters cannot be avoided, any temporarily affected jurisdictional wetlands or waters shall be restored to pre-construction conditions or better at the end of construction, in accordance with the requirements of USACE, regional board, and CDFW permits. Compensation for permanent impacts on wetlands or waters shall be provided at a 1:1 ratio, or as agreed upon by CDFW, USACE, and regional board. Compensation for loss of wetlands may be in the form of permanent on-site or off-site creation, restoration, enhancement, or preservation of habitat. To that end, the restoration or compensation sites shall, at a minimum, meet the following performance standards by the fifth year after restoration: <ol style="list-style-type: none"> Wetlands restored or constructed as federal wetlands meet the applicable federal criteria for jurisdictional wetlands, and wetlands restored or constructed as state wetlands meet the state criteria for jurisdictional wetlands. No more cover by invasive species shall be present than in the baseline/impact area pre-project. <p>Restoration and compensatory mitigation activities shall be described in the habitat mitigation and monitoring plan prescribed by Mitigation Measure M-BI-4, Avoidance of Impacts on Pickleweed Mat Sensitive Natural Community.</p>				
GEOLOGY AND SOILS				
<p>Mitigation Measure M-GE-6a: Unanticipated Discovery of Paleontological Resources during Construction. The following procedures must be undertaken for project construction activities:</p> <ul style="list-style-type: none"> <i>Worker Awareness Training.</i> Prior to commencing construction, and ongoing throughout ground disturbing activities (e.g., excavation, utility installation), the project sponsor and/or their designee shall ensure that all project construction workers are trained on the contents of the Paleontological Resources Alert Sheet, as provided by the planning department. The Paleontological Resources Alert Sheet shall be prominently displayed at the construction site during ground disturbing activities for reference regarding potential paleontological resources. 	Project sponsor and/or their designee	Prior to and during ground disturbing activities	Project sponsor and contractor(s) shall distribute an alert sheet and submit a confirmation letter to the ERO each time a training session is held. The letter shall	Considered complete upon end of ground disturbing activities

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>In addition, the project sponsor shall inform the contractor and construction personnel of the immediate stop work procedures and other procedures to be followed if bones or other potential fossils are unearthed at the project site. Should new workers that will be involved in ground disturbing construction activities begin employment after the initial training has occurred, the construction supervisor shall ensure that they receive the worker awareness training as described above.</p> <p>The project sponsor shall complete the standard form/affidavit confirming the timing of the worker awareness training to the Environmental Review Officer (ERO). The affidavit shall confirm the project's location, the date of training, the location of the informational handout display, and the number of participants. The affidavit shall be transmitted to the ERO within 5 business days of conducting the training.</p> <ul style="list-style-type: none"> • <i>Paleontological Resource Discoveries.</i> In the event of the discovery of an unanticipated paleontological resource during project construction, ground disturbing activities shall temporarily be halted within 25 feet of the find until the discovery is examined by a qualified paleontologist as recommended by the Society of Vertebrate Paleontology standards (SVP 2010) and Best Practices in Mitigation Paleontology (Murphey et al. 2019). Work within the sensitive area shall resume only when deemed appropriate by the qualified paleontologist in consultation with the ERO. <p>The qualified paleontologist shall determine: (1) if the discovery is scientifically significant; (2) the necessity for involving other responsible or resource agencies and stakeholders, if required or determined applicable; and (3) methods for resource recovery. If a paleontological resource assessment results in a determination that the resource is not scientifically important, this conclusion shall be documented in a Paleontological Evaluation Letter to demonstrate compliance with applicable statutory requirements (e.g., Federal Antiquities Act of 1906, CEQA Guidelines section 15064.5, California Public Resources Code chapter 17, section 5097.5, Paleontological Resources Preservation Act 2009). The Paleontological Evaluation Letter shall be submitted to the ERO for review within 30 days of the discovery.</p> <p>If the qualified paleontologist determines that a paleontological resource is of scientific importance, and there are no feasible measures to avoid</p>	<p>Project sponsor, qualified paleontologist, and construction contractor, at the direction of the ERO</p>	<p>In the event of the discovery of an unanticipated paleontological resource during construction</p>	<p>be submitted within 5 business days of conducting a training session.</p> <p>The project sponsor and a qualified paleontologist shall submit a Paleontological Evaluation Letter or Paleontological Mitigation Program to the ERO.</p>	<p>Considered complete upon end of ground disturbing activities or, if necessary, approval of a Paleontological Evaluation Letter or Paleontological Mitigation Program by the ERO</p>

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>disturbing this paleontological resource, the qualified paleontologist shall prepare a Paleontological Mitigation Program. The mitigation program shall include measures to fully document and recover the resource of scientific importance. The qualified paleontologist shall submit the mitigation program to the ERO for review and approval within 10 business days of the discovery. Upon approval by the ERO, ground disturbing activities in the project area shall resume and be monitored as determined by the qualified paleontologist for the duration of such activities.</p> <p>The mitigation program shall include: (1) procedures for construction monitoring at the project site; (2) fossil preparation and identification procedures; (3) curation of paleontological resources of scientific importance into an appropriate repository; and (4) preparation of a Paleontological Resources Report (report or paleontology report) at the conclusion of ground disturbing activities. The report shall include dates of field work, results of monitoring, fossil identifications to the lowest possible taxonomic level, analysis of the fossil collection, a discussion of the scientific significance of the fossil collection, conclusions, locality forms, an itemized list of specimens, and a repository receipt from the curation facility. The project sponsor shall be responsible for the preparation and implementation of the mitigation program, in addition to any costs necessary to prepare and identify collected fossils, and for any curation fees charged by the paleontological repository. The paleontology report shall be submitted to the ERO for review within 30 business days from conclusion of ground disturbing activities, or as negotiated following consultation with the ERO.</p>				
<p>Mitigation Measure M-GE-6b: Paleontological Resource Monitoring Plan during Construction. During the course of implementing Mitigation Measure M-GE-6a, if a significant paleontological resource is encountered, the project sponsor shall engage a qualified paleontologist to develop a site-specific monitoring plan prior to commencing soil-disturbing activities at the project site. The Paleontological Monitoring Plan would determine project construction activities requiring paleontological monitoring based on those likely to affect sediments with moderate sensitivity for paleontological resources. Prior to issuance of any demolition permit, the project sponsor shall submit the Paleontological Resource Monitoring Plan to the ERO for approval.</p>	Project sponsor, qualified paleontologist, and construction contractor, at the direction of the ERO	Prior to issuance of any demolition project	Project sponsor and a qualified paleontologist shall submit a Paleontological Resource Monitoring Plan to the ERO.	Considered complete upon approval of the monitoring plan

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>At a minimum, the plan shall include:</p> <ol style="list-style-type: none"> 1. Project Description 2. Regulatory Environment – outline applicable federal, state, and local regulations 3. Summary of Sensitivity Classification(s) 4. Research Methods, including but not limited to: <ol style="list-style-type: none"> 4a. Field studies conducted by the approved paleontologist to check for fossils at the surface and assess the exposed sediments. 4b. Literature Review to include an examination of geologic maps and a review of relevant geological and paleontological literature to determine the nature of geologic units in the project area. 4c. Locality Search to include outreach to the University of California Museum of Paleontology in Berkeley. 5. Results: to include a summary of literature review and finding of potential site sensitivity for paleontological resources; and depth of potential resources if known. 6. Recommendations for any additional measures that could be necessary to avoid or reduce any adverse impacts to recorded and/or inadvertently discovered paleontological resources of scientific importance. Such measures could include: <ol style="list-style-type: none"> 6a. Avoidance: If a known fossil locality appears to contain critical scientific information that should be left undisturbed for subsequent scientific evaluation. 6b. Fossil Recovery: If isolated small, medium- or large-sized fossils are discovered during field surveys or construction monitoring, and they are determined to be scientifically significant, they should be recovered. Fossil recovery may involve collecting a fully exposed fossil from the ground surface, or may involve a systematic excavation, depending upon the size and complexity of the fossil discovery. 6c. Monitoring: Monitoring involves systematic inspections of graded cut slopes, trench sidewalls, spoils piles, and other types of construction excavations for the presence of fossils, and the fossil recovery and documentation of these fossils before they are destroyed by further ground disturbing actions. Standard 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>monitoring is typically used in the most paleontologically sensitive geographic areas/geologic units (moderate, high and very high potential); while spot-check monitoring is typically used in geographic areas/geologic units of moderate or unknown paleontological sensitivity (moderate or unknown potential).</p> <p>6d. Data recovery and reporting: Fossil and associated data discovered during soils disturbing activities should be treated according to professional paleontological standards and documented in a data recovery report. The plan should define the scope of the data recovery report.</p> <p>The consultant shall document the monitoring conducted according to the monitoring plan and any data recovery completed for significant paleontological resource finds discovered, if any. Plans and reports prepared by the consultant shall be considered draft reports subject to revision until final approval by the ERO. The final monitoring report and any data recovery report shall be submitted to the ERO prior to the certificate of occupancy.</p>	Project sponsor, qualified paleontologist, and construction contractor, at the direction of the ERO	Prior to the certificate of occupancy	Project sponsor and a qualified paleontologist shall submit a final monitoring report to the ERO.	Considered complete upon approval of the final monitoring report by the ERO
HYDROLOGY AND WATER QUALITY				
<p>Mitigation Measure M-HY-1: Water Quality Best Management Practices for In-Water Work. The project sponsor shall implement water quality best management practices to protect water quality from pollution due to fuels, oils, lubricants, and other harmful materials, as determined in consultation with the Environmental Planning Division of the San Francisco Planning Department based on review of engineering and construction details of project improvements. The Planning Department shall review best management practices detailed in the San Francisco Department of Public Health Pollution Prevention Toolkit for Maritime Industries along with other measures as may be identified to address specific construction details of proposed project improvement to determine the specific mitigation details, which may include:</p> <ul style="list-style-type: none"> • Preparation of a spill prevention control and countermeasure (SPCC) plan to address the emergency cleanup of any hazardous material and will be available on site, which typically includes: <ul style="list-style-type: none"> – Methods to address the emergency cleanup of any hazardous material and what materials will be available on site; 	Project sponsor and construction contractor	SPCC and MMDP Plans submitted prior to construction; plans and measures to be implemented during construction	Project sponsor or contractor shall submit the SPCC and MMDP plans to the planning department for review and approval.	Considered complete upon approval of SPCC and MMDP plans by the planning department

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<ul style="list-style-type: none"> - SPCC, hazardous waste, stormwater and other emergency planning requirements; - Measures to prevent spills into the Bay associated with in water fueling, if in water fueling is required on some of the construction barges. Such measures can include: <ul style="list-style-type: none"> o Secondary booms and/or pads, depending upon where fueling would take place on the vessel; o Secondary containment on the deck of the vessel to contain the petroleum product; o Specifying volume of petroleum products that will be on the vessel and evaluating the potential for spills. Absorbent and cleanup materials (such as oil sorbent boom, heavy oil pads, Oil-Dri Absorbent Floor, etc.) of sufficient quantity to clean up potential spill volume shall be provided; and o The locations of properly permitted offsite locations where vessels will be fueled. • Fueling of equipment consistent with proper fuel transfer procedures as per U.S. Coast Guard regulations (33 CFR 156.120 and 33 CFR 155.320), including inspection requirements of spill containment and the fueling location to document that no spills have occurred, or that any spills are cleaned up immediately. • Well-maintained equipment is used to perform the construction work, and equipment maintenance is performed off site when possible. Daily equipment inspections to help prevent leaks or spills. Leaks or spills are best cleaned up when discovered, with proper disposal of cleaning materials; • Precautions to protect listed species, their habitats, and Essential Fish Habitat from construction by-products and pollutants such as demolition debris, construction chemicals, fresh cement, saw-water, or other deleterious materials. Construction will be conducted from both land and water, and care shall be used by equipment operators to control debris so that it does not enter the Bay. • A materials management disposal plan (MMDP) to prevent any debris from falling into the Bay during construction to the maximum extent 				

Adopted Mitigation Measure	Monitoring and Reporting Program ^a			
	Implementation Responsibility	Mitigation Schedule	Monitoring/Reporting Responsibility	Monitoring Actions/Completion Criteria
<p>practicable. The measures identified in the MMDP are commonly based on the Best Available Technology, and may include:</p> <ul style="list-style-type: none"> - During construction, any barges performing the work shall be moored in a position to capture and contain the debris generated during any sub-structure or in-water work. In the event that debris does reach the Bay, personnel in workboats within the work area shall immediately retrieve the debris for proper handling and disposal. All debris shall be disposed of at an authorized upland disposal site; - Measures to ensure that fresh cement or concrete shall not be allowed to enter San Francisco Bay. Construction waste shall be collected and transported to an authorized upland disposal area, and per federal, state, and local laws and regulations; - All hazardous material shall be stored upland in storage trailers and/or shipping containers designed to provide adequate containment. Short-term laydown of hazardous materials for immediate use shall be permitted with the same anti-spill precautions; - All construction material, wastes, debris, sediment, rubbish, trash, fencing, etc., shall be removed from the site once the proposed project is completed and transported to an authorized disposal area, in compliance with applicable federal, state, and local laws and regulations; - Construction material shall be covered every night and during any rainfall event (if there is one); - Construction crews shall reduce the amount of disturbance within the project site to the minimum necessary to accomplish the project; and - Measures to prevent saw water from entering the Bay. 				

NOTES:

^a Definitions of MMRP Column Headings:

- *Adopted Mitigation Measures*: Full text of the mitigation measure(s) copied verbatim from the final CEQA document.
- *Implementation Responsibility*: Entity who is responsible for implementing the mitigation measure. In most cases this is the project sponsor and/or project's sponsor's contractor/consultant and at times under the direction of the planning department.
- *Mitigation Schedule*: Identifies milestones for when the actions in the mitigation measure need to be implemented.
- *Monitoring/Reporting Responsibility*: Identifies who is responsible for monitoring compliance with the mitigation measure and any reporting responsibilities. In most cases it is the planning department who is responsible for monitoring compliance with the mitigation measure. If a department or agency other than the planning department is identified as responsible for monitoring, there should be an expressed agreement between the planning department and that other department/agency. In most cases the project sponsor, their contractor, or consultant are responsible for any reporting requirements.
- *Monitoring Actions/Completion Criteria*: Identifies the milestone at which the mitigation measure is considered complete. This may also identify requirements for verifying compliance.