



US Army Corps
of Engineers®
San Francisco District

SAN FRANCISCO DISTRICT

Regulatory Division
1455 Market Street, 16th Floor
San Francisco, CA 94103-1398

PUBLIC NOTICE

PROJECT: San Francisco-Oakland Bay Bridge East Span Seismic Safety Project Permit Modification – Marine Foundations Pier E2, and Piers E21 to E23 Observation Areas, and Piers E19 and E20 Removal Project

PUBLIC NOTICE NUMBER: 1997-230130

PUBLIC NOTICE DATE: May 4, 2018

COMMENTS DUE DATE: June 4, 2018

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1. **INTRODUCTION:** The California Department of Transportation (CalTrans) (POC: Stefan Galvez-Abadia, (510) 867-6785), 111 Grand Avenue, Post Office Box 23660, Oakland, California 94623-0660, has applied to the U.S. Army Corps of Engineers (USACE), San Francisco District, for a modification to a Department of the Army Individual Permit for the San Francisco-Oakland Bay Bridge (SFOBB) East Span Seismic Safety Project (SFOBB Project), which consists of replacing the SFOBB original east span with a new bridge immediately to the north and demolition of the original east span. This modification would allow for the retention of Pier E2 and Piers E21 to E23, to support new public access structures, and removal of Piers E19 and E20 via controlled blasting. The original Department of the Army permit authorization was issued on December 4, 2001, pursuant to the provisions of Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C § 1344 *et seq.*) and Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C § 403 *et seq.*).

2. PROPOSED PROJECT:

Project Site Location: The SFOBB Project is located in San Francisco Bay and spans Yerba Buena Island and the City of Oakland (Figure 1). Piers E2 and E19-E23 are located between latitude 37.814277° N and longitude -122.358574° W, to latitude 37.821280° and longitude -122.330281° W (Figure 2).

Project Site Description: Pier E2 is a large concrete cellular structure founded on rock. Piers E19 to E23 consist of lightly reinforced concrete foundations that are supported by timber piles driven into the Bay mud.

Pier E2: Pier E2 is a large, reinforced concrete cellular structure, resting on an unreinforced concrete seal course with an average thickness of about 35 feet, which is placed on rock. The dimensions of the concrete seal course are approximately 122 feet by 43 feet and the cellular structure of the pier is 121 feet by 41 feet. The reinforced concrete walls within Pier E2 range from 3 to 4 feet in thickness. The hollow chambers of Pier E2 contain water that exchanges with the bay through weep holes in the foundation located at an approximate elevation of -2 feet (National Geodetic Vertical Datum of 1929 [NGVD29]). The mudline elevation around Pier E2 ranges from approximately -10 feet to -30 feet NGVD29 on the west face and approximately -30 feet to -40 feet NGVD29 on the east face.

Piers E19-E22: Piers E19 to E23 are cellular concrete structures which are supported on concrete slabs and Douglas fir timber piles encased in a concrete seal. A concrete seal was poured on top of these piles, and a reinforced concrete slab was set on that seal. Piers E19 to E23 each have two hollow concrete pedestals that are connected to the steel tower legs of the superstructure. A central reinforced concrete chamber connects the two pedestals.

Project Description: The current proposed project modification consists of three components: 1) retention of Pier E2 and construction of the Yerba Buena Island (YBI) observation area, 2) retention of Piers E21 to E23 and construction of the Oakland Touchdown (OTD) observation area, and 3) removal of Piers E19 and E20 via controlled blasting.

Retention of Pier E2 and Construction of the YBI Observation Area: CalTrans proposes to retain the existing Pier E2 marine foundation as an anchor for a new YBI Observation Area, an over-water pedestrian bridge and observation area public access facility (Figure 3). In addition to the bridge and YBI observation area, CalTrans would construct roadways, parking, sidewalks, and paths, and would include a landing area with a ramp and stairs to meet the elevation where the Pier E2 bridge would meet the abutment. All public access facilities would be designed to meet current state guidance for sea level rise to end-of-century projections. The construction of facilities at Pier E2 would require previously authorized mechanical removal of some portion of the pedestals and pier slabs to reduce the elevation of the structure, as required by the design. Resulting rubble from mechanical dismantling of the upper portion of Pier E2 would be permanently placed within the open cells of the pier.

The free span pedestrian bridge to Pier E2 from YBI would be comprised of multiple precast, prestressed concrete box girders with approximate dimensions of 120 feet (length) by 19 feet (width). The box girders would be used to create a pedestrian walkway 15 feet in width between pedestrian railings. The area of the bridge, including abutment outline, would be approximately 2,300 square feet (sq. ft.). The bridge would be seated on the east end of the modified Pier E2 structure and on a reinforced concrete abutment that would be constructed on YBI. On top of Pier E2, a reinforced concrete slab approximately 43 feet by 122 feet would be constructed to serve as an observation platform. Railings would be installed around the exterior of the platform.

Shoreline protection is proposed to stabilize the existing YBI shoreline and minimize erosion, and to retain a roadway on a raised fill embankment. Shoreline protection would consist of filter fabric placed on an excavated slope with sand and small diameter rock placed on the filter fabric and larger diameter rock placed on or adjacent to the smaller diameter rock. A portion would be placed in jurisdictional waters. Depending on the location, a foundation may need to be created for these features. The landward side of these features would retain level fills with a maximum height of 7 feet above existing grades. Shoreline protection is proposed at three locations on YBI. The first would be placed along approximately 460 feet long of shoreline south of the proposed parking area and east of the existing USCG base. It is proposed to have a setback of about 20 feet behind existing slopes.

The second and third placements would be on either side of the proposed pedestrian bridge abutment. These would place approximately 70 feet and 180 feet of shoreline protection respectively and would be set back a minimum of 4 feet behind the finished face of the soil slope.

CalTrans is coordinating with Treasure Island Development Authority (TIDA) and the City and County of San Francisco to develop formal commitments for TIDA, to provide operations and maintenance of the proposed project after construction with funding from the Bay Area Toll Authority. Until such commitments are in place, CalTrans would be the owner and operator of the proposed facilities.

Retention Piers E21, E22, and E23 and Construction of the OTD Observation Area: CalTrans proposes to retain Piers E21, E22, and E23 marine foundations as anchors for a new over-water observation area public access facility at the OTD (OTD Observation Area, Figure 4). Four new pile supported piers would be constructed to support this observation area. In addition, access walkways and roads to the new structure on the OTD would be constructed outside of jurisdictional waters. A temporary access trestle would be constructed to facilitate access to the piers (previously authorized by modification on July 6, 2012). The construction of these facilities would require mechanical removal of some, or all of the pedestals and pier caps (also previously authorized).

The total footprint of the OTD Observation Area, over the Bay would be approximately 19,830 square feet (0.45 acre). In addition to construction of the pedestrian bridges, modifications to the tops of the marine foundations and pedestals would be required to support girders and to create bearing seats above anticipated sea-level rise elevations. Two 290-foot bridge deck spans would connect Pier E23 to Pier E22 and Pier E22 to Pier E21. Between the spans and directly above Pier E21 the deck would bulb out with reinforced concrete slabs to approximately 40 feet by 90 feet to serve as observation platforms.

Within the footprint of each new 290-foot bridge deck span, two new pile-supported piers would be placed at approximately 96 feet from each of the existing piers, to support the box girders. This would result in four new piers with supporting piles placed in-water. Each new pile-supported pier would be made of three to four cast-in-shell steel piles, approximately 120 feet long and 36 inches in diameter or less. These pipe piles would be driven to their

design tip elevations with a mechanical hammer and then would have concrete poured into them. The steel shells would remain.

Minor contour grading would be necessary to create embankments and ramps to facilitate public access to the OTD Observation Area. New pathways and lighting would be installed on land to connect the proposed observation area to the Bay Trail at the landing of the SFOBB new east span bike path. These public access features would be located outside of the USACE's jurisdiction.

CalTrans is coordinating with East Bay Regional Parks District (EBRPD) to develop formal commitments for EBRPD to provide operations and maintenance of the proposed project after construction with funding from the Bay Area Toll Authority. The OTD observation area would be incorporated into the future Gateway Park, which would also be operated by EBRPD. Until such commitments are in place, CalTrans would be the owner and operator of the proposed facilities.

Removal Piers E19 and E20: CalTrans is proposing the removal of Piers E19 and E20 via a combination of mechanical dismantling and controlled blasting. Proposed methods used to remove these piers are similar to those used for the previously authorized removals of Pier E3 (2015), Piers E4 and E5 (2016), and Piers E6 to E18 (2017). Pier implosion would involve installation of charges, activation of the Blast Attenuation System (BAS), implosion of the piers, and management of remaining dismantling debris. The timber piles and concrete seal courses of the piers that are below approved removal limits would remain in place. Rubble that mounds above the determined debris removal limit elevations from the dismantling of these piers would be removed and transported out of USACE's jurisdiction.

For Piers E19 and E20, charges would be loaded into pre-drilled boreholes. To minimize potential impacts on biological resources a BAS, similar to that used for previous blast events, would be used. The effectiveness of this minimization measure is supported by the findings from the successful Pier E3 Demonstration Project and removal of Piers E4 to E18. CalTrans would implode both of these piers sequentially during a single, controlled blast event. Controlled blasting removal would be accomplished using hundreds of small charges, with delays between individual charges. The controlled blast removals have

been designed to remove each pier to a minimum 3 feet below the average mudline elevation that occurs outside each pier's scoured pit.

Following each controlled blasting event and confirmation that the area is safe for work, construction crews would remove all associated equipment, including barges, compressors, the BAS, and blast mats. The portions of each pier that do not break apart during controlled blasting and remain above the removal limits would be demolished by mechanical means. This may require use of underwater mechanical equipment, including hydraulic crushing or grinding machinery or diver-operated jackhammers. Rubble from the controlled blasting of Piers E19 and E20 would be removed down to each pier's respective planned debris removal limit elevation by a barge-mounted crane with a clamming bucket. The clamming bucket would be equipped with a GPS unit, to guide the movement of the bucket during underwater operation.

Purpose of Modification Request: The purpose of the modification request is to authorize demolition of Piers E19 and E20 via controlled blasting; reuse of piers E2, E21, E22, and E23; and construction of new public access features in jurisdictional waters of the U.S.

Project Impacts: The proposed project modification would result in 0.083 acre of new permanent fill for public access structures and 0.19 acre of existing fill retained from remaining SFOBB original east span marine foundations in waters of the U.S. A total of 0.09 acre of existing fill would also be removed from waters of the U.S. as a result of the removal of Piers E19 and E20.

With this modification request, an additional 480 cubic yards of new fill would be placed within 0.083 acre of waters of the U.S. for public access structures. This includes 400 cubic yards placed within 0.08 acre of waters of the U.S. in the form of shoreline protection at YBI. An additional 80 cubic yards would be placed within 0.003 acre in the form of 12 new piles in support of the OTD Observation Area.

Proposed Mitigation: No additional/new compensatory mitigation has been proposed. CalTrans is proposing to place new permanent fill (shoreline protection on YBI and 12 new piles to support the OTD Observation Area) and retain existing fill (Piers E2 and E21 to E22) in jurisdictional waters of the U.S. A \$15.5 million

compensatory mitigation package has been implemented for the SFOBB Project that includes over \$8.8 million for the restoration of wetlands at Skaggs Island. Hydrographic, marine mammal, fish, bird, eelgrass, water quality, and hydro-acoustic monitoring, similar to that previously required, has been proposed.

3. STATE AND LOCAL APPROVALS:

Water Quality Certification/Waste Discharge Requirement: State water quality certification or a waiver thereof is a prerequisite for the issuance of a Department of the Army Permit to conduct any activity which may result in a fill or pollutant discharge into waters of the United States, pursuant to Section 401 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1341 *et seq.*). The applicant submitted applications to the California Regional Water Quality Control Board (RWQCB) on January 25, 2018 (YBI), and February 23, 2018 (OTD), to obtain an amendment to the Waste Discharge Requirements (WDR) for the project. No Department of the Army permit amendment will be granted until the applicant obtains the required WDR amendment.

Water quality issues should be directed to the Executive Officer, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612, by the close of the comment period.

Coastal Zone Management: Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) *et seq.*), requires a non-Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a Consistency Certification that indicates the activity conforms with the state's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate state agency has issued a Consistency Certification or has waived its right to do so. Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) *et seq.*), requires a Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a Consistency Determination that indicates the activity conforms with the state's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate State agency has issued a Consistency Determination or has waived its right to do so. Since the project occurs in the coastal zone

or may affect coastal zone resources, the applicant has applied for a Consistency Determination and/or Consistency Determination Amendment from the San Francisco Bay Conservation and Development Commission to comply with this requirement.

Coastal zone management issues should be directed to the Executive Director, San Francisco Bay Conservation and Development Commission, 50 California Street, Suite 2600, San Francisco, California 94111, by the close of the comment period.

4. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act (NEPA): Upon review of the Department of the Army permit modification request and other supporting documentation, and at the conclusion of the public comment period, USACE will assess the environmental impacts of the proposed project modification in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347), the Council on Environmental Quality's Regulations at 40 C.F.R. Parts 1500-1508, and USACE Regulations at 33 C.F.R. Part 325. The final NEPA analysis will normally address the direct, indirect, and cumulative impacts that result from regulated activities within the jurisdiction of USACE and other non-regulated activities USACE determines to be within its purview of Federal control and responsibility to justify an expanded scope of analysis for NEPA purposes. The final NEPA analysis will be incorporated in the decision documentation that provides the rationale for issuing or denying the permit modification for this Department of the Army Permit. The final NEPA analysis and supporting documentation will be on file with the San Francisco District, Regulatory Division.

Endangered Species Act (ESA): Section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. § 1531 *et seq.*), requires Federal agencies to consult with either the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to ensure actions authorized, funded, or undertaken by the agency are not likely to jeopardize the continued existence of any Federally-listed species or result in the adverse modification of designated critical habitat. As the Federal lead agency for this project, the applicant will be responsible for determining the presence or absence of Federally-listed species and designated critical habitat, and the need to conduct

consultation. To complete the administrative record and the decision on whether to modify a Department of the Army Permit for the project, USACE will obtain all necessary supporting documentation from the applicant concerning the consultation process. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit modification for the project.

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA): Section 305(b)(2) of the MSFCMA of 1966, as amended (16 U.S.C. § 1801 *et seq.*), requires Federal agencies to consult with the NMFS on all proposed actions authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH). EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is designated only for those species managed under a Federal Fisheries Management Plan (FMP), such as the *Pacific Groundfish FMP*, the *Coastal Pelagics FMP*, and the *Pacific Coast Salmon FMP*. As the Federal lead agency for this project, the applicant will be responsible for determining the presence or absence of EFH, and the need to conduct consultation. To complete the administrative record and the decision on whether to issue a Department of the Army Permit modification for the project, USACE will obtain all necessary supporting documentation from the applicant concerning the consultation process. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit modification for the project.

Marine Protection, Research, and Sanctuaries Act (MPRSA): Section 302 of the MPRS of 1972, as amended (16 U.S.C § 1432 *et seq.*), authorizes the Secretary of Commerce, in part, to designate areas of ocean waters, such as the Cordell Bank, Gulf of the Farallones, and Monterey Bay, as National Marine Sanctuaries for the purpose of preserving or restoring such areas for their conservation, recreational, ecological, or aesthetic values. After such designation, activities in sanctuary waters authorized under other authorities are valid only if the Secretary of Commerce certifies that the activities are consistent with Title III of the Act. No Department of the Army Permit modification will be issued until the applicant obtains the required certification or permit. The project does not occur in sanctuary waters, and a preliminary review by USACE indicates the project would not likely affect sanctuary resources. This presumption of effect, however, remains subject to a final determination by the Secretary of

Commerce, or his designee.

National Historic Preservation Act (NHPA): Section 106 of the NHPA of 1966, as amended (16 U.S.C. § 470 *et seq.*), requires Federal agencies to consult with the appropriate State Historic Preservation Officer to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the *National Register of Historic Places*. Section 106 of the Act further requires Federal agencies to consult with the appropriate Tribal Historic Preservation Officer or any Indian tribe to take into account the effects of their undertakings on historic properties, including traditional cultural properties, trust resources, and sacred sites, to which Indian tribes attach historic, religious, and cultural significance. As the Federal lead agency for this project, the applicant will be responsible for determining the presence or absence of historic properties or archaeological resources and the need to conduct consultation. To complete the administrative record and the decision on whether to issue a Department of the Army Permit modification for the project, USACE will obtain all necessary supporting documentation from the applicant concerning the consultation process. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit modification for the project. If unrecorded archaeological resources are discovered during project implementation, those operations affecting such resources will be temporarily suspended until the applicant concludes Section 106 consultation with the State Historic Preservation Officer or the Tribal Historic Preservation Officer to take into account any project related impacts to those resources.

6. PUBLIC INTEREST EVALUTION: The decision on whether to issue a Department of the Army Permit modification will be based on an evaluation of the probable impacts, including cumulative impacts, of the project and its intended use on the public interest. Evaluation of the probable impacts requires a careful weighing of the public interest factors relevant in each particular case. The benefits that may accrue from the project must be balanced against any reasonably foreseeable detriments of project implementation. The decision on permit issuance will, therefore, reflect the national concern for both protection and utilization of important resources. Public interest factors which may be relevant to the decision process include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water

supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. CONSIDERATION OF COMMENTS: USACE is soliciting comments from the public; Federal, State, and local agencies and officials; Native American Nations or other tribal governments; and other interested parties in order to consider and evaluate the impacts of the project modification. All comments received by USACE will be considered in the decision on whether to issue, modify, condition, or deny a Department of the Army Permit modification for the project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, and other environmental or public interest factors addressed in a final environmental assessment or environmental impact statement. Comments are also used to determine the need for a public hearing and to determine the overall public interest in the project modification.

8. SUBMITTING COMMENTS: During the specified comment period, interested parties may submit written comments to Bryan Matsumoto, San Francisco District, Regulatory Division, 1455 Market Street, 16th Floor, San Francisco, California 94103-1398, or by email at Bryan.T.Matsumoto@usace.army.mil; comment letters/emails should cite the project name, applicant name, and public notice number to facilitate review by the Regulatory Permit Manager. Comments may include a request for a public hearing on the project prior to a determination on the Department of the Army permit modification application; such requests shall state, with particularity, the reasons for holding a public hearing. All substantive comments will be forwarded to the applicant for resolution or rebuttal. Additional project information or details on any subsequent project modifications of a minor nature may be obtained from the applicant and/or agent or by contacting the Regulatory Permit Manager by telephone or e-mail (cited in the public notice letterhead). An electronic version of this public notice may be viewed under the *Public Notices* tab on the USACE website: <http://www.spn.usace.army.mil/Missions/Regulatory>.