File No. 100813

Committee Item No. 16
Board Item No. 35

# COMMITTEE/BOARD OF SUPERVISORS

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**Committee:** Budget and Finance **Date:** June 28, 2010

**Board of Supervisors Meeting** **Date:** 7.13.10

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**Completed by:** Andrea S. Ausberry **Date** Friday, June 25, 2010
**Completed by:** AA **Date** 7.6.10

An asterisked item represents the cover sheet to a document that exceeds 25 pages. The complete document is in the file.

[Agreement with the San Francisco County Transportation Authority Relating to Yerba Buena Island Ramps - Not to Exceed $18,830,000]

**Resolution approving a Third Amendment to the Memorandum of Agreement between the Treasure Island Development Authority and the San Francisco County Transportation Authority for project management services and consultant services for the preparation of a project report and environmental document for the Yerba Buena Island Ramps to amend the scope of work and increase the not to exceed budget to $18,830,000.**

WHEREAS, Treasure Island was selected for closure and disposition by the Base Realignment and Closure Commission in 1993, acting under Public Law 101-510, and its subsequent amendments; and,

WHEREAS, On May 2, 1997, the Board of Supervisors passed Resolution No. 380-97, authorizing the Mayor's Treasure Island Project Office to establish a nonprofit public benefit corporation known as the Treasure Island Development Authority ("TIDA") to act as a single entity focused on the planning, redevelopment, reconstruction, rehabilitation, reuse and conversion of former Naval Station Treasure Island (the "Base") for the public interest, convenience, welfare and common benefit of the inhabitants of the City and County of San Francisco; and,

WHEREAS, Under the Treasure Island Conversion Act of 1997, which amended Section 33492.5 of the California Health and Safety Code and added Section 2.1 to Chapter 1333 of the Statutes of 1968 (the "Act"), the California legislature (i) designated TIDA as a redevelopment agency under California redevelopment law with authority over the Base upon approval of the City's Board of Supervisors, and, (ii) with respect to those portions of the Base

which are subject to the Tidelands Trust, vested in TIDA the authority to administer the public trust for commerce, navigation and fisheries as to such property; and,

WHEREAS, The Board of Supervisors approved the designation of TIDA as a redevelopment agency for Treasure Island in 1998; and,

WHEREAS, The United States Navy currently owns the on- and off-ramp connections to Yerba Buena Island from Interstate 80, the San Francisco-Oakland Bay Bridge, and, because Federal law prohibits the Navy from "improving" surplus property, the Navy cannot repair or replace the ramps as part of the transfer of the Base property to TIDA; and,

WHEREAS, Current State designs for the new Eastern Span of the Bay Bridge ("Eastern Span") include construction of one new ramp connecting the Bay Bridge to Yerba Buena Island and reuse of three other existing ramps that do not meet current State design and safety standards; and,

WHEREAS, An October 2003 Memorandum of Understanding between TIDA and the State, acting through Caltrans, indicated that, among other things, (i) the State and City agreed to seek and support any legislative changes necessary to provide for State ownership of all connections to the Eastern Span, and (ii) the State agreed to ensure that there are safe and reliable connections between the Eastern Span and Yerba Buena Island in both eastbound and westbound directions, consistent with State design standards; and,

WHEREAS, In October 2007, the Governor signed Senate Bill 163, which: (i) requires Caltrans to work in cooperation with TIDA and the San Francisco County Transportation Authority ("SFCTA") on the design and engineering of replacement ramps connecting Yerba Buena Island to the Bay Bridge and to ensure that the design of the ramps is compatible with the design of the new Eastern Span; (ii) authorizes Caltrans, upon the transfer of the ramp connections from the Federal Government to TIDA, to accept from TIDA title, easements, and other interests in land necessary for the State to own and operate one or more of the ramps;

(iii) makes transfer of a ramp from TIDA to the State contingent upon completion of work on the ramp in accordance with specified standards; and (iv) requires (1) a Project Study Report ("PSR") on the reconstruction of the Yerba Buena Island ramps to be finalized by December 31, 2008, (2) the SFCTA to be the lead agency for the development of the PSR, and (3) the SFCTA to work in coordination with TIDA, the Office of Economic and Workforce Development ("OEWD"), and the Bay Area Toll Authority; and,

WHEREAS, The PSR for the Yerba Buena Island ramps, which was prepared by the SFCTA in coordination with TIDA, OEWD and Caltrans, was approved and signed by Caltrans District 04 on December 19, 2007; and,

WHEREAS, The PSR evaluates several ramp design alternatives and recommends two project alternatives, and a no-build alternative, to be further studied and analyzed in the Project Report and Environmental Document ("PR-ED") phase of the proposed improvement or replacement of the Yerba Buena Island ramps (the "YBI Ramps Project"); and,

WHEREAS, The project development process for the YBI Ramps Project consists of a two-phase effort with Phase 1 consisting of conceptual engineering and the PR-ED, and Phase 2 being the final design and preparation of Plans, Specifications/Special Provisions and Estimate ("PS&E"); and,

WHEREAS, Completion of the PR-ED on a timely basis is imperative so that the new ramp designs can be incorporated into the Eastern Span Seismic Safety Project ("ESSSP") for the Bay Bridge; and,

WHEREAS, Article V, Section 2(k) of TIDA's Bylaws authorizes TIDA to contract with governmental agencies, including without limitation, any department, commission or agency of the City, for the performance of services in furtherance of and related to the purposes of TIDA; and,

WHEREAS, TIDA has asked the SFCTA, in its capacity as the City's Congestion Management Agency, to (i) lead the effort to prepare and obtain approval of the PR-ED for the YBI Ramps Project and (ii) provide the upfront funding for the staff and consultant costs related to this effort; and,

WHEREAS, On May 13, 2008 at a properly noticed public meeting, the Board of Supervisors adopted Resolution No. 228-08 approving a Memorandum of Agreement between TIDA and the SFCTA under which (i) the SFCTA provides staff support and project management oversight in connection with the YBI Ramps Project and entered into a contract with the consultant selected through a Request for Proposals for preparation of the PR-ED, and (ii) TIDA will reimburse the SFCTA for the administrative, project management and consultant costs incurred by SFCTA relating to the YBI Ramps Project and the completion of the PR-ED in an amount not to exceed $3,000,000, together with interest on such reimbursable costs at the City Treasurer's Pooled Investment Fund rate or the SFCTA's borrowing rate, whichever is applicable; and,

WHEREAS, The Memorandum of Agreement was amended pursuant to a First Amendment dated May 20, 2009 to revise the scope of work and increase the not to exceed budget to $8,800,000; and,

WHEREAS, TIDA and the SFCTA staff have been in negotiations with Caltrans on two distinct Cooperative Agreements between the SFCTA and Caltrans relating to (i) Caltrans' issuance of an addendum to the contract for the Yerba Buena Island Transition Structure ("YBITS") for the steel and concrete necessary to connect the new westbound ramps to the YBITS, and (ii) reimbursement of Caltrans for oversight work relating to the YBI Ramps Project that is above and beyond typical Caltrans oversight work for a locally led project due to the additional oversight necessary to connect the ramps to a high profile lifeline seismic bridge structure; and,

WHEREAS, The Memorandum of Agreement was amended pursuant to a Second Amendment dated October 28, 2009 that adjusted the scope of work under the Memorandum of Agreement to reflect the Caltrans Cooperative Agreements without increasing the $8,800,000 not to exceed amount; and,

WHEREAS, TIDA and the SFCTA have negotiated a Third Amendment to the Memorandum of Agreement ("Third Amendment") that (i) revises the scope of services and budget to include all necessary project management and oversight, design and engineering activities to complete Phase 2 of the YBI Ramps Project and all phases of the design, engineering and environmental review for the retrofit of nine YBI viaduct structures on Treasure Island Road, and (ii) increases the total not to exceed amount of the Memorandum of Agreement to $18,830,000, plus accrued interest; and,

WHEREAS, TIDA and the SFCTA anticipate that approximately $9,543,000 of the $18,830,000 not to exceed amount of the Memorandum of Agreement will be reimbursed to the SFCTA from the federal Highway Bridge Program or other state or federal funds, with TIDA being responsible for reimbursement to the Authority of the remaining $9,287,000 to cover costs not covered by state or federal funds or the federal grant local matching funds requirements; and,

WHEREAS, On June 9, 2010 at a properly noticed meeting, the TIDA Board of Directors approved the Third Amendment and authorized the Treasure Island Redevelopment Project Director to execute the Third Amendment, subject to Board of Supervisors approval; and,

WHEREAS, On June 22, 2010 at a properly noticed meeting, the SFCTA Commission approved the Third Amendment and authorized the Executive Director of the SFCTA to execute the Third Amendment; and,

WHEREAS, TIDA's organizational documents require the Board of Supervisors' approval of any contract that TIDA enters into prior to the adoption of a redevelopment plan for the Base if the value of the contract is worth more than $1,000,000 or has a term of ten years or more; and,

WHEREAS, The Memorandum of Agreement is a contract for an amount in excess of $1,000,000; now, therefore, be it

RESOLVED, That the Board of Supervisors hereby approves the Third Amendment to the Memorandum of Agreement with the SFCTA for project management services and consultant services in connection with the preparation of a PR-ED, preliminary engineering and Caltrans oversight for the I-80/YBI Interchange Improvements Project in an amount not to exceed $18,830,000, plus accrued interest, in substantially the form filed with the Clerk of the Board in File No. 100813, and any additions, amendments or other modifications to the Third Amendment (including, without limitation, its exhibits) that the Treasure Island Redevelopment Project Director determines, in consultation with the City Attorney, are in the best interests of TIDA and do not otherwise materially increase the obligations or liabilities of TIDA, and are necessary or advisable to effectuate the purpose and intent of this resolution.

**RECOMMENDED:**

TREASURE ISLAND DEVELOPMENT AUTHORITY

By: _____
Jack Sylvan
Treasure Island Redevelopment Project Director

**Treasure Island Development Authority**
**City and County of San Francisco**

***Resolution Authorizing a Third Amendment to the Memorandum of Agreement with the San Francisco County Transportation Authority for Project Management and Oversight, Engineering and Environmental Services for the Interstate 80/Yerba Buena Island Interchange Improvements Project.***

## SUMMARY OF PROPOSED ACTION

Authorizing a Third Amendment to the Memorandum of Agreement between the Treasure Island Development Authority (TIDA) and the San Francisco County Transportation Authority (SFCTA) in which the SFCTA, as the local congestion management agency, provides project management services and contracts with a consultant team for the preparation of a Project Report, Environmental Document and final Design, Engineering and Project, Specifications and Estimates for the Yerba Buena Island ramps and Yerba Buena Island viaducts. The amount of the reimbursement agreement is not to exceed $18,830,000; and, TIDA's anticipated reimbursement obligation is estimated at approximately $9,289,000.

## BACKGROUND

Currently, there are six ramps connecting Yerba Buena Island (YBI) to the San Francisco-Oakland Bay Bridge (SFOBB): two ramps on the western side of the YBI tunnel – a westbound on-ramp and an eastbound off-ramp; and four ramps on the eastern side of the YBI tunnel – a westbound on-ramp, a westbound off-ramp, an eastbound on-ramp and an eastbound off-ramp (see Exhibit A for an aerial photo of Yerba Buena Island). As outlined in Exhibit B, the designs for the Eastern Span Seismic Safety Project of the Bay Bridge ("ESSSP") include one new, improved ramp from YBI onto the bridge in the eastbound direction. Caltrans' current plans are to reconnect the three other existing eastern ramps in their current configuration to the new ESSSP. These three existing ramps (YBI Ramps), which are not currently and will not be up to the ESSSP's lifeline status seismic standards and/or Caltrans' operational safety standards, comprise a portion of the improvements anticipated under the terms of the proposed amended agreement. There are no plans to replace the western-side ramps.

Over the past several years, staff – working with the San Francisco County Transportation Authority (SFCTA), Caltrans, the Metropolitan Transportation Commission (MTC), the Bay Area Toll Authority (BATA), the Bay Area Toll Bridge Program Oversight Committee (TBPOC) and local elected officials – has made significant progress to advance the construction of new YBI Ramps that would provide safe, seismically sufficient ramp structures to the new ESSSP.

To facilitate the design and engineering process moving forward, in April 2008, TIDA authorized entering into an MOA with the SFCTA that supported (i) SFCTA staff project management oversight and (ii) contracting with an engineering and environmental consulting

team to prepare the Project Report and Environmental Document (PR-ED). The SFCTA, in coordination with TIDA staff, selected AECOM as its contractor to conduct the engineering and environmental review. Pursuant to this structure, TIDA staff, the SFCTA and the selected contractor initiated work on the PR-ED and environmental review in collaboration with Caltrans. In May 2009, the TIDA authorized an amendment to the MOA with the SFCTA that enabled the project engineering and environmental review to stay on track with the schedule of the ESSSP and funding strategy. That first amendment provided for additional scope of work needed to enable delivery of preliminary engineering of the YBI Ramps project to the 65% Design level on the Caltrans ESSSP schedule for contract bid of first quarter 2012. The budget was increased to a not-to-exceed amount of $8.8 million. In October 2009, the TIDA authorized a Second Amendment to the MOA adjusting the scope to incorporate the terms of two Cooperative Agreements between the SFCTA and Caltrans – one for Caltrans' costs of providing oversight services above and beyond a typical project as a result of the Project's connection to the high-profile ESSSP, and a second for the cost of additional structural components for the ESSSP YBITS 1 contract. This amendment restructured the scope and budget of the MOA, but did not increase the total not-to-exceed amount of $8.8 million.

## DISCUSSION

While the MOA with the SFCTA contemplated originally that the scope of work under the agreement – and under the associated professional services contract between the SFCTA and its engineering contractor – may ultimately be adjusted to include final project engineering, to date the scope and budget have not included the final phase of work, known as the Project Specifications and Estimates (PS&E). This was due to strategic reasons, the most important of which was a desire to solidify eligibility for federal funds for the construction and project engineering. Over the past nine months staff and the SFCTA have made significant progress with Caltrans and the Federal Highways Administration (FHWA) in confirming that the project will be eligible for FHWA's Highway Bridge Program (HBP). The HBP funds 88.53% of costs for project design, engineering and construction. Under the terms of the MOA, the remaining 11.47% of the project management and oversight, design, engineering and environmental review will be provided upfront via the SFCTA, ultimately to be reimbursed by TIDA. State Proposition 1B Local Seismic Safety Retrofit Project funds are anticipated to be the source of the matching funds for the cost of construction of the projects.

In addition, over the past months FHWA and Caltrans have confirmed that the viaduct structures (YBI Viaducts), a series of nine elevated roadway bridges along the western shore of YBI on Treasure Island Road, are also eligible for HBP funds. Consequently, it is now appropriate to amend the scope of the MOA (attached as Exhibit C) to include the following components:

- YBI Ramps Phase 2/PS&E. Amends the scope of the agreement to include all necessary project management and oversight, design and engineering activities to complete Phase 2 of the YBI Ramps portion of the project. Subtasks include (i) completion of 65% Plans, Specifications and Estimate, (ii) 95% Plans, Specifications and Estimate, (iii) Final Plans Specifications and Estimate, and (iv) a Building 10 Relocation Feasibility Study. This includes all activities through completion of the PS&E, which is the final stage of

engineering and will enable Caltrans to issue bid documents for a construction contract for the new YBI ramps by August 2011.

- YBI Viaducts. Amends the scope of the agreement to include all phases of the design, engineering and environmental review for the retrofit of the YBI Viaducts portion of the project. The scope includes two primary tasks: (i) Preliminary Engineering and Environmental Studies, and (ii) an Approved Strategy Design. Completion of these activities will result in engineering drawings that are ready for contract bid by the appropriate entity, potentially the SFCTA under a subsequent agreement.

**Budget & Reimbursement**

The current not-to-exceed budget of the MOA is $8.8 million. The SFCTA estimates that the amended scope will increase the SFCTA's total costs to approximately $18.83 million; and, HBP funds will be remitted directly to the SFCTA on a reimbursement basis, projected to cover $9.543 million of the total amount. Therefore, the TIDA's obligation under the proposed amended MOA would increase by a modest amount of $487,000, for an anticipated total TIDA reimbursement obligation of $9.287 million. The new total not-to-exceed amount of the agreement will be for the full amount of the anticipated Authority expenditures, $18.83 million, to acknowledge that TIDA reimbursement obligation will be the full amount of all Authority expenditures that are not reimbursed by state or federal dollars. Because the final eligibility determination for the HBP funds are pending approval with Caltrans and FHWA (expected this month), the SFCTA would not issue a notice to proceed on the additional scope of work until the final eligibility determination is received.

Under the amendment, the TIDA will be required to reimburse the SFCTA for 100% of the SFCTA's costs, plus accrued interest as specified in the agreement. TIDA's reimbursement obligation will consist of four equal annual payments, plus accrued interest, beginning on December 31, 2011. This date is after the anticipated date of project approvals, thereby enabling TIDA to access post-project entitlement funding, either via its development agreement with Treasure Island Community Development, LLC or public financing capacity, to cover the reimbursement obligation. The costs of these reimbursement obligations were included in the infrastructure budget in the recently endorsed Updates to the Development Plan and Term Sheet. The proposed amendment acknowledges that the terms and timeframe for repayment of the TIDA reimbursement obligation are based on an assumed reimbursement amount of $9.289 million (which assumes the remaining Authority expenditures are reimbursed via federal HBP dollars) and that, in the case TIDA's reimbursement obligation is greater than this amount, both parties will meet and negotiate to determine in each party's discretion whether it is appropriate to adjust the terms and timeframe for the reimbursement from TIDA. Any modifications to the MOA to accommodate this adjusted timeframe for reimbursement would need to be approved by TIDA.

## BOARD OF SUPERVISORS APPROVAL

The TIDA Board approved the third amendment at its June 9, 2010 meeting. TIDA contracts in excess of $1,000,000 or 10 years require approval by the San Francisco Board of Supervisors. Consequently, approval of this agreement by the TIDA Board is subject to further approval by the Board of Supervisors.

## SFCTA APPROVAL

The SFCTA Finance Committee unanimously forwarded this item to the full Commission with recommendation for approval on June 8, 2010. The full Commission will consider approval of the item on June 22, 2010.

## RECOMMENDATION

Staff recommends approving the Third Amendment to the MOA with the SFCTA in order to move forward the design, engineering and environmental review for the YBI Ramps and YBI Viaducts in coordination with Caltrans in order to facilitate efficiencies in the timing of construction with the ESSSP and state and federal funding opportunities.

## EXHIBITS

A Aerial Photo of YBI

B Caltrans ESSSP Design

C Third Amendment to Memorandum of Agreement

# AMENDMENT NO. 3 TO THE MEMORANDUM OF AGREEMENT FOR PROJECT MANAGEMENT AND OVERSIGHT, ENGINEERING, AND ENVIRONMENTAL SERVICES FOR THE YERBA BUENA ISLAND IMPROVEMENTS PROJECT

This Amendment is made and shall be effective this __ day of June, 2010, by and between the San Francisco County Transportation Authority ("Authority") and the Treasure Island Development Authority ("TIDA"), referred to collectively as "Parties" or individually as "Party".

## RECITALS

A. The Authority and TIDA entered into a Memorandum of Agreement ("Agreement"), effective as of July 1, 2008, in the amount of $3,000,000 for project management and oversight, engineering, and environmental services for the Yerba Buena Island Ramps project in San Francisco (the "YBI Ramps Project.")

B. Pursuant to a Request for Proposal that the Authority issued in March 2008 ("the RFP"), the Authority hired a consultant ("the Consultant") to provide the engineering and environmental services necessary to complete the Project.

C. The Authority and TIDA amended the Agreement ("Amendment No. 1"), effective as of May 20, 2009, to provide for additional preliminary engineering work by the Consultant; to extend the Authority's Project Management Services to include oversight of that additional Consultant work; and to increase the Agreement amount to $8,800,000.

D. The Authority and TIDA further amended the Agreement ("Amendment No. 2"), effective as of October 28, 2009, to incorporate Cooperative Agreements (No. 4-2283 and 4-2137) between the Authority and the California Department of Transportation ("Caltrans") related to the Project; to provide for TIDA to reimburse the Authority for Caltrans costs as defined in the Cooperative Agreements, and to provide for the Authority to amend its contract with the Consultant while staying within the $8,800,000 Agreement amount.

E. TIDA now requests that the Authority amend its contract with the Consultant to provide for the Consultant to complete the Phase 2 design and engineering work through final design and preparation of Plans, Specifications and Estimates ("PS&E") and to add scope for work on the Yerba Buena Island Viaducts ("YBI Viaducts"). Together, the YBI Ramps Project and YBI Viaducts constitute the "I-80/YBI Interchange Improvements Project" or the "Project."

F. TIDA and the Authority agree that they should increase the not-to-exceed amount of the Agreement from $8,800,000 to $18,830,000 consistent with the amended scope of work. The parties anticipate that approximately $9,543,000 of this amount will be reimbursed to the Authority from the federal Highway Bridge Program or other state or federal funds, with TIDA being responsible for reimbursement to the Authority of the remaining $9,287,000 to cover costs not covered by state or federal funds or the federal grant local matching funds requirements for the additional work.

G. The Parties therefore wish to amend the terms of the Agreement as permitted by Section 8 of the original Agreement.

AMENDMENTS TO THE AGREEMENT

All terms of the original Agreement, as amended by Amendment No. 1 and Amendment No. 2, shall remain in effect, except amended as follows:

1. The title of the Agreement is struck and replaced in its entirety by the following title:

MEMORANDUM OF AGREEMENT FOR PROJECT MANAGEMENT AND OVERSIGHT, ENGINEERING, AND ENVIRONMENTAL SERVICES FOR THE I-80/YERBA BUENA ISLAND INTERCHANGE IMPROVEMENT PROJECT

2. Section 2 of the Agreement is struck and replaced in its entirety as follows:

**2. Consultant and Caltrans Services.**

**a. Consultant Services.** The Authority shall contract for professional services with the consultant chosen in accordance with the RFP (the "Consultant") to perform the Phase 1 conceptual engineering and preparation of the Project Report (PR) and the Environmental Document (ED), and to perform 100% of the Phase 2 Design services through final PS&E for the Yerba Buena Island ramps, including preliminary engineering, environmental analysis, and design of the Yerba Buena Island viaducts, all as more particularly described in the Consultant Scope of Work set forth in Appendix C and the Consultant Budget set forth in Appendix D, both of which are incorporated by reference as if fully set forth herein. Collectively, all work by the Consultant under the contract with the Authority is the "Consultant Services."

**b. Caltrans Services.** In order to build the YBI ramps in conjunction with the construction of the new Eastern Span of the San Francisco – Oakland Bay Bridge ("SFOBB"), the Authority must execute two critical Cooperative Agreements with the California Department of Transportation ("Caltrans") as more particularly defined in the Caltrans Scope of Work set forth in Appendix C, and the Caltrans Budget set forth in Appendix D. Collectively, all work by Caltrans under the Cooperative Agreements is the "Caltrans Services."

3. Section 3 of the Agreement is struck and replaced in its entirety as follows:

**3. Coordination**. The Authority and TIDA agree to the following with regard to the performance of the Project Management Services, the Consultant Services and the Caltrans Services under this Agreement:

**a.** TIDA's redevelopment planning project management staff, via the OEWD, shall participate in the Consultant procurement process under the RFP and shall work in conjunction with the Authority's project management staff as a member of the Project Development Team for the Project.

**b.** TIDA and the Authority shall work jointly to seek State and federal bond, grant or appropriation funds to pay for all or any portion of the environmental, design and engineering work necessary for the Project.

**c.** TIDA and the Authority shall establish a timeframe and work with Caltrans, the Metropolitan Transportation Commission, the Bay Area Toll Authority, the California Transportation Commission and other relevant agencies to enable the timing of the design, engineering and construction of the Project to occur in conjunction with the construction of the new eastbound ramp that is part of the ESSSP.

**d.** The Authority shall conduct all major communications with the Consultant and Caltrans regarding deliverables, task updates or other performance of services.

**e.** Consultant shall submit task-based invoices directly to the Authority for payment for services rendered. Caltrans shall submit invoices directly to the Authority for payment for services rendered. The Authority shall review the Consultant's and Caltrans' invoices and process payments as appropriate. The Authority shall submit a copy of the paid invoices and supporting documentation to TIDA. The Authority shall provide a quarterly report to TIDA describing services rendered and the costs and expenses incurred by the Authority for the Project Management Services, the Consultant Services and the Caltrans Services (collectively, the "Authority Costs").

**f.** The Authority shall retain full and final discretion to resolve payment issues relating to the Consultant Services and Caltrans Services; provided, that the costs are consistent with the mutually agreed upon Consultant Scope of Work and Consultant Budget and the Caltrans Scope of Work and Caltrans Budget, as applicable.

**g.** The Authority shall notify TIDA, through OEWD, of any proposed changes to the Project Management Scope of Work, the Consultant Scope of Work, the Caltrans Scope of Work, the Project Management Budget, the Consultant Budget and/or the Caltrans Budget within two (2) days of the proposed change being known by the Authority or requested by the Consultant or by Caltrans. TIDA, through OEWD, shall have the right to approve all proposed changes to the Project Management Scope of Work, the Consultant Scope of Work (including any proposed termination of the Consultant), the Caltrans Scope of Work, the Project Management Budget, the Consultant Budget and/or the Caltrans Budget.

**h.** The Authority shall provide timely deliverables to TIDA. The Authority shall maintain project records including deliverables, progress reports, correspondence, and a full accounting of the Authority Costs, and shall make such records available to TIDA upon request.

**i.** The Authority and TIDA shall have regular coordinating meetings, as needed.

4. Section 4 of the Agreement is struck and replaced in its entirety as follows:

**4. <u>TIDA Reimbursement Obligation.</u>**

**a.** Interest shall accrue on the outstanding unreimbursed Authority Costs and Local Match (defined below), compounded quarterly, at the City Treasurer's Pooled Investment Fund rate or the Authority's borrowing rate, whichever is applicable, beginning on the date of the Authority's first payment to the Consultant or Caltrans, whichever occurs first, and continuing until the Authority has received full reimbursement under this Section 4 from TIDA and applicable state or federal agencies. If the Authority has not issued long-term fixed rate debt, the applicable interest rate will be the City Treasurer's Pooled Investment Fund rate, calculated quarterly. If the Authority has issued long-term fixed rate debt, the applicable interest rate will be the greater of a) the "all-in TIC" of the Authority's most

recent long-term fixed rate issuance, or b) the most recent City Treasurer's Pooled Investment Fund rate, calculated quarterly. *(The all-in TIC is defined as: The discount rate, assuming semiannual compounding and a 30/360-day calendar, which sets the net present value of all payments of principal and interest equal to the par amount of bonds plus accrued interest plus premium less original issue discount less insurance premium less costs of issuance less other up front expenses discounted to the issue date.)* If at any time the Authority issues long-term fixed rate debt and that increases the applicable interest rate under this subsection, the Authority shall modify the rate to the appropriate interest rate under this subsection and use that new rate going forward. The Authority shall provide written notice to TIDA of any change in the interest rate and the date on which the Authority applied the new rate. Notwithstanding the foregoing, in no event shall the interest rate the Authority applies exceed the maximum rate permitted under California Government Code Section 53531.

**b.** The Authority and TIDA anticipate that a significant portion of the total Authority Costs will be covered by state and federal funds, including but not limited to federal Highway Bridge Program dollars. If the state or federal government provide funds or approve a grant for the Authority Costs that requires local matching funds, the Authority shall make the initial payments of any required local matching funds ("Local Match"). TIDA shall be responsible to reimburse the Authority for any Local Match plus interest calculated under subsection (a) above in installment payments under subsection (c) below. If state or federal funds do not become available for the Authority Costs, the Authority and TIDA shall work together in an effort to identify other funding sources. If state or federal funds are made available for the Authority Costs, but the applicable state or federal agency disallows the Authority's reimbursement claims on costs related to Authority Costs, the Authority and TIDA shall work together with the applicable state and federal agency in an effort to address and correct any grounds for the disallowance decision.

**c.** All Authority Costs, Local Match and accrued interest under subsection (a) are referred to in this Agreement as the "Project Costs." TIDA shall reimburse the Authority for all Project Costs less any state or federal government funds actually reimbursed to the Authority for Authority Costs (the "TIDA Reimbursement Obligation"), in four annual installment payments, as follows:

| **Payment Number** | **Amount Due** | **Due Date** |
|---|---|---|
| First Payment | 25% of the then current amount due under the Agreement | The earlier of December 31, 2011 or thirty (30) days after the first close of escrow for transfer of NSTI from TIDA to TICD |
| Second Payment | 33% of the then current amount due under the Agreement | The earlier of December 31, 2012 or 365 days from the date of the First Payment |
| Third Payment | 50% of the then current amount due under the Agreement | The earlier of December 31, 2013 or 365 days from the date of the Second Payment |
| Fourth Payment | Balance due | The earlier of December 31, 2014 or 365 days from the date of the Third Payment |

TIDA shall fully reimburse the Authority for the TIDA Reimbursement Obligation by no later than December 31, 2014. TIDA shall have the right to pay all or any portion of the amounts due under this Agreement at any time.

**d.** Except as provided herein, in no event shall the principal amount of the TIDA Reimbursement Obligation exceed a "not-to-exceed amount" of Nine Million Two Hundred Eighty Seven Thousand Dollars ($9,287,000), as outlined in the Total Budget attached to this Agreement as Appendix E, without approval of TIDA's Board of Directors. The not-to-exceed amount does not apply to or limit TIDA's obligations for accrued interest on the Authority Costs or any Local Match. As detailed in Appendix E, it is anticipated that state and federal funds, including federal Highway Bridge Program dollars, will fund approximately $9,543,000 of the total Project expenses shown on Appendix E and that TIDA will be responsible for the remaining $9,287,000 as its payment for Authority Costs and the Local Match. However, notwithstanding the not-to-exceed amount set forth above, if state or federal funds do not become available for some or all of the Authority Costs anticipated in Appendix E to be paid by state or federal funds, or if any state or federal agency disallows the Authority's reimbursement claims on some or all of the Authority Costs anticipated in Appendix E to be paid by state or federal funds, then all Authority Costs anticipated to be but not paid by state or federal funds shall be included in the TIDA Reimbursement Obligation and TIDA shall pay those amounts. In this circumstance, the maximum not-to-exceed amount for the principal amount of the TIDA Reimbursement Obligation will increase to Eighteen Million Eight Hundred Thirty Thousand Dollars ($18,830,000). This increased not-to-exceed amount does not apply to or limit TIDA's obligations for accrued interest on the Authority's Costs or any Local Match. TIDA and the Authority acknowledge that the terms and time period for reimbursement of the TIDA Reimbursement Obligation outlined in Section 4(c) of this Agreement are based on the assumed not-to-exceed TIDA Reimbursement Obligation amount of $9,287,000. TIDA and the Authority agree that if the not-to-exceed amount for the TIDA Reimbursement Obligation is greater than this amount due to the Authority's inability to recover Authority Costs from the anticipated state and federal funds, it may be appropriate to adjust the time period for repayment of the TIDA Reimbursement Obligation and the parties shall meet and negotiate in good faith to evaluate and as mutually agreeable revise the schedule and deadlines in subsection (c) above. Regardless of any adjustments to the schedule and deadlines for repayment, TIDA shall be responsible for the full amount of the TIDA Reimbursement Obligation.

**e.** The Authority and TIDA acknowledge that this Agreement memorializes a reimbursement obligation of TIDA to the Authority and shall not be construed as a grant or gift of funds from the Authority to TIDA.

5. Appendix C of the Agreement, Consultant and Caltrans Scope of Work, is struck and replaced in its entirety by the Appendix C attached hereto and incorporated by reference as if fully set forth herein.

6. Appendix D of the Agreement, Consultant/Caltrans/Authority Budget, is struck and replaced in its entirety by the Appendix D attached hereto and incorporated by reference as if fully set forth herein.

7. Appendix E of the Agreement, Total Budget, is struck and replaced in its entirety by the

Appendix E attached hereto and incorporated by reference as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment on the day first mentioned above.

AUTHORITY

Recommended by:

Cynthia Fong
Deputy Director for Finance and Administration

Approved by:

José Luis Moscovich
Executive Director

TIDA

Executed by:

Jack Sylvan
Treasure Island Redevelopment Project Director
On behalf of the Treasure Island Development Authority

Approved as to form:

Dennis J. Herrera
City Attorney

By:
Deputy City Attorney

Appendices:
Amended Appendix C, dated June ____, 2010
Amended Appendix D, dated June ____, 2010
Amended Appendix E, dated June ____, 2010

## Appendix C

## Consultant and Caltrans Scope of Work

### Scope of Services

TIDA has requested that the Authority continue to proactively manage and obtain Caltrans project development approvals for the I-80/Yerba Buena Island (YBI) Interchange Improvements project. The Authority is undertaking this effort in its capacity as Congestion Management Agency for San Francisco and in cooperation with TIDA, the Office of Economic and Workforce Development (OEWD), and Caltrans District 04.

The project development process consists of a two-phase effort with Phase 1 consisting of the conceptual engineering, PR and ED. The ED is a combined Environmental Impact Report (EIR) and Environmental Impact Study (EIS). Phase 2 is continued preliminary engineering and design up to final PS&E documents.

The Authority has retained its consultant to provide the necessary planning and engineering services to produce all necessary documents required to obtain the Project Approval and Environmental Clearance (a Project Report (PR) and an Environmental Document (ED)), and to complete design and engineering work through final PS&E. The Authority's consultant shall be responsible for all work necessary to prepare a PR/ED and to complete PS&E documents and shall comply with applicable local, State, and Federal standards.

TIDA has also asked that the scope of the consultant services contract include preliminary engineering, environmental analysis and design for the seismic retrofit of the Yerba Buena Island (YBI) Viaducts on the west side of YBI. The consultant scope of work for the YBI Viaducts portion of the project includes all work necessary to prepare preliminary engineering, environmental analysis and design in accordance with the current Caltrans policies and procedures and includes all work necessary to complete construction drawings for the Viaducts that will be bid by the City.

The scope of work for the new YBI Ramps portion of the project includes all work necessary to prepare a PR and ED in accordance with the current Caltrans policies and procedures and includes all work necessary to complete construction drawings for the new ramps that may be bid by Caltrans. The final PR and ED will require the City and County of San Francisco (City), the Authority and Caltrans approval.

Project schedule: the Authority desires to adhere to the milestone schedule shown below for the consultant contract to develop the appropriate preliminary and final design documents. The schedule is intended to include adequate time for review and comments by the appropriate participating agencies.

- Notice to Proceed — July 1, 2010
- Complete Preliminary Design — September 2010
- Complete Final Design — February 2011
- Construction Contract Advertisement — August 2011

## Caltrans Scope of Work

In order to build the YBI ramps in conjunction with the construction of the new Eastern Span of the San Francisco – Oakland Bay Bridge (SFOBB), two critical Cooperative Agreements have been executed with Caltrans defined as follows:

1. Cooperative Agreement No. 4-2283 - defines responsibilities for issuance and implementation of an Addendum (in November 2009) to the currently advertised SFOBB Yerba Buena Island Transition Structure (YBITS) # 1 project. This construction contract Addendum allows for structural steel and concrete to be constructed as part of Caltrans SFOBB YBITS # 1 project to accommodate the future construction of the YBI Ramps project. Agreement Amendment No. 2 reimburses Caltrans for their construction capital and support costs estimated at $715,000.

2. Cooperative Agreement No. 4-2137 - defines responsibilities for both the Authority and Caltrans for project development work (i.e.: environmental analysis, right of way, and design) required for the project. Agreement Amendment No. 2 also establishes reimbursement to Caltrans for State services estimated at $750,000.

## YERBA BUENA ISLAND – WEST SIDE VIADUCT RETROFIT

## AECOM Scope of Work

This scope of services has been prepared for the San Francisco County Transportation Authority (Authority) in order to initiate Seismic Retrofit Strategy and provide Retrofit PS&E for the Construction of the Yerba Buena Island West Side Viaduct Retrofit Project. The Authority has requested this scope of services be considered as another amendment to our current YBI Ramps Project. To achieve the overall Island Transportation Safety Improvements, close coordination between the two projects is required to coordinate funding, staging, and traffic handling. The following scope represents work for retrofit of the existing West Side Viaducts:

### Phase 1 - Preliminary Engineering and Environmental Studies

**Tasks**

1.0 Project Management
2.0 Field Survey / 3D As-Built Survey
3.0 Concrete X-Ray / Ground Penetrating Radar
4.0 Preliminary Geotechnical Investigations & Borings
- 4.1 Field Investigation & Preliminary Foundation Report
- 4.2 Draft Foundation Report

5.0 Seismic Strategy Reports / Seismic Retrofit Review
- 5.1 Review Existing Viaduct Data
- 5.2 Mandatory Field Review
- 5.3 As-Built Seismic Analysis
- 5.4 Draft Strategy Report
- 5.5 Strategy Meeting
- 5.6 Final Strategy Report

6.0 Environmental Document
- 6.1 Preliminary Environmental Study (PES) Form
- 6.2 Environmental Technical Studies
  - 6.2.1 Water Quality Analysis
  - 6.2.2 Natural Environmental Study
  - 6.2.3 Visual Impact Analysis
  - 6.2.4 Cultural Resources
- 6.3 Categorical Exemption / Categorical Exclusion Form

7.0 Initiate Right of Way Transfer

### Phase II - Approved Strategy Design

**Tasks**

8.0 Prepare Plans, Specifications, and Estimates
- 8.1 Project Management and Meetings
- 8.2 Roadway Plan Submittal (65% Plans)
- 8.3 Retrofit Design Submittal (Unchecked Structure Plans)
- 8.4 Unedited Specifications

8.5 65% Quantities and Estimates
8.6 Finalize R/W Requirements

9.0 Final Foundation Report
9.1 Prepare Draft Foundation Report
9.2 Prepare Final Foundation Report

10.0 100% Plans, Specifications, and Estimates
10.1 Project Management
10.2 Final PS&E
10.3 Final PS&E Approval

## PHASE 1

## PRELIMINARY ENGINEERING AND ENVIRONMENTAL STUDIES

Phase 1 Scope of Work includes AECOM Project Management as well as all preliminary engineering studies and field reviews for the determination of the retrofit strategy. It also includes determination of the Historic Resources Evaluation Report (HRER) as well as Environmental studies to support retrofit only of the structures. To correlate with the current HBP funding request, only seismic retrofit design improvements similar to those noted in the documented Treasure Island Seismic Vulnerability Report, dated February 15, 2006 are included in the retrofit scope for Phase 2 Design. If structure replacement becomes the approved Strategy, or rehabilitation work such as barrier replacement, deck overlays or other repair work is requested to be added to the project design, the associated design and environmental effort to support this expanded retrofit shall be considered out of scope work.

**TASK 1 – PROJECT MANAGEMENT** – Consultant will perform the following Project Management activities:

a) Supervise, coordinate and monitor product development for conformance with Caltrans, SFCTA, City and County of San Francisco standards and policies.

b) Coordinate in-house design staff and subconsultants to assure free and timely flow of information for each task activity.

c) Assure compliance with other codes and standards as acceptable to Caltrans and approved by SFCTA. An example would be the use of San Francisco standards for arterials and local roads outside Caltrans' right-of-way.

d) Assure that documents requiring Caltrans' oversight review are prepared in accordance with Caltrans' standards, guidelines, and procedures.

e) Prepare a detailed project schedule within two weeks after Notice to Proceed, and submit an updated electronic file schedule on a monthly basis.

**1.1 Project Administration** – Consultant will perform the following project administrative duties:

a) Prepare and submit monthly progress reports in SFCTA format that will identify work performed on each task the preceding month. Percent complete compared to percentages billed for each task will be shown.

b) Prepare a monthly summary of total charges made to each task. This summary shall present the contract budget for each task, reallocated budget amounts, prior billing amount, current billing, total billed to date, and a total percent billed to date.

c) Provide a summary table in SFCTA format indicating the amount of LBE firm participation each month based upon current billing and total billed to date.

d) Provide a monthly invoice by task that will present charges by staff member at agreed to hourly rates, expense charges, and subconsultant charges. Support documentation for Consultant direct expenses and subconsultant charges will be attached.

**1.2 Quality Assurance / Quality Control** – Consultant will establish and implement a quality control procedure for design activities by in-house and subconsultants. The QA/QC

procedure set forth for the project shall be consistent with Caltrans' most recent version of "Guidelines for Quality Control / Quality Assurance for Project Delivery".

The QA/QC process for this project will consist of the following minimum reviews:

a) Discipline Review – each responsible design discipline leader will perform technical checking.

b) Peer Review/Coordination Checking – Coordination and independent checking activities will be performed by a separate group of engineers who have the capability to identify and evaluate coordination problems and to initiate, recommend, or provide solutions.

c) Constructibility Review – A constructibility review will be performed for each alternative recommended for further study.

**1.3 Agency Coordination** – Consultant will perform coordination with Agencies as required for project development. Coordinate design effort with team members, including the following:

a) Caltrans (offices, departments, divisions and groups as directed by Caltrans Project Development) and, if applicable, Caltrans Division of Structures, assume 4 meetings

b) San Francisco Engineering and Planning Departments, assume 2 meetings

c) San Francisco Right-of-Way , assume 1 meeting

d) Affected utility companies, assume 2 meetings

e) Regulatory agencies and private property owners .assume 2 meetings

f) BATA PMT and the TBPOC. Assume 8 meetings

**1.4 Progress Meetings and Reporting** - Consultant will attend the following meetings:

a) Project Kick-Off meeting with Caltrans to identify the issues to be resolved, and review the project scope of work.

b) Technical workshop meetings with Caltrans and other agencies to resolve issues.

c) Design coordination meetings with in-house design team and subconsultants.

d) Conduct regular monthly Project Development Team (PDT) Meetings, assume 24 meetings. SFCTA will determine the location for the meetings. Required activities include the following:

i. Preparation and submittal of agenda for PDT Meetings.
ii. Preparation and submittal of Status of Submittals Register.
iii. Preparation and distribution of meeting after each PDT Meeting.

e) Public meeting(s) to present preliminary alternatives and obtain public input, assume 4 meetings

f) Public hearing(s) as part of the environmental process, assume 1 meeting

**1.5 Technical Advisory Committee**:

a) Select panel members with various disciplines and/or from agencies, including CTC, MTC, BATA, and FHWA

b) Develop mission statement, goals and schedule

c) Hold three meetings with the final meeting providing direction for the project

## TASK 2 – FIELD SURVEY/3D AS-BUILT SURVEY

It is anticipated that the strategy determination phase of the work will rely on 3D Survey Scans for existing topographic information as well as the majority of superstructure and columns as-built dimensions. Available information will be used to describe temporary and permanent easement/takes and the potential impacts, for estimating purposes.

**2.1 Field Survey** - following activities will be performed by Towill as part of Field Survey;

a) Establish Ground control

b) Establish Existing Alignment for:

- Treasure Island Road
- Hillcrest Road
- Westbound Entrance Ramp from I-80 Bay Bridge
- Eastbound Exit Ramp to I-80 Bay Bridge
- I-80 Bay Bridge Centerline

c) Cross section survey will be performed at 50 ft intervals

**2.2 Three Dimensional (3D) As-Built Survey** –following activities will be performed;

Due to the absence of the actual as-build information for the structures and constraint sight conditions in the project area a 3-Dimensional survey will be performed. Such survey allows for development of detailed three dimensional reliable as-built information.

Survey will include visible roadway surface, visible bridge structural details above and below the bridge deck, exposed bridge members, footings and piers.

## TASK 3 – CONCRETE X-RAY/GROUND PENETRATING RADAR

Eight of the Viaduct structures that are eligible for seismic retrofit lack detailed as-built information. To analyze these structures, detailed information of the column, bridge deck and foundations is necessary. This can be performed by AECOM special services staff using non-destructive methods such as X-Ray and Ground Penetrating Radar (GPR).

Portable X-Ray equipment can be used for the exposed columns. It will be important that joint location of the column to the bridge foundation is examined to establish amount of steel. GPR will be used for pile cap locations. In some cases pile caps will need to be exposed if possible since equipment can only penetrate 18 inches through concrete. At column locations penetration depth can be increased to 24 inches if radar is used from both sides.

In cases where column or pile cap cannot be accessed for examination, exposed typical condition for the bridge will be assumed based on the field data.

## TASK 4 – PRELIMINARY GEOTECHNICAL INVESTIGATIONS & BORINGS

EMI will perform preliminary geotechnical evaluations in the project area including the geotechnical field investigation. This information is a necessary aid for the bridge evaluations and the development of the retrofit strategy. Project location is in highly variable terrain with possible high seismicity. Site geology is composed of the variable soil cover and fractured rock with potential of land sliding. Variable groundwater conditions exist in the project area.

### 4.1 Field Investigation & Preliminary Foundation Report

a) Collect and review existing data (As-built bridge log of test borings and foundation reports)

b) Conduct aerial photograph review and interpretation to determine slide and erosion areas

c) Geological field mapping - Area-wide geological surface mapping by engineering geologists to determine daylighting and potentially unfavorable joints at rock outcrops and bedding, and extent of existing slide areas. Soil cover is present and varies in thickness. Analyze geologic mapping data, and prepare geologic map identifying slide zones and strike/dip of rock joints.

d) Develop initial geologic cross sections.

e) Conduct site seismicity evaluation, present existing site-specific ground motions used for YBI on East Span project.

f) Determine feasible foundation types.

g) Prepare preliminary foundation report (PFR) with site seismicity evaluation, findings from review of existing geotechnical information, geological mapping, and feasible foundation types.

***Deliverables:*** ***Draft Preliminary Foundation Report***

h) Geotechnical field investigation

- Conduct field review to plan investigation to locate bore sites to avoid temporary access road or platform construction.
- Conduct geotechnical field investigation in summer using rotary-wash soil boring and rock coring to determine soil and rock conditions, rock mass characteristics, and measure groundwater table if possible.
- Approximate number of borings (by structure):

| Structure # | Length (ft) | # Spans | Existing Foundations | New Foundations | # Borings |
|---|---|---|---|---|---|
| 1 | 220 | 3 | Spread footing | Check foundation capacity | 2 |
| 2 | 600 | 15 | Spread footing | 4' dia. CIDH | 4 |
| 3<br>6 | 250<br>120 | 12<br>3 | Spread footing<br>Spread footing | 4' dia. CIDH<br>Check foundation capacity | 2 |
| 4 | 160 | 8 | Spread footing | 4' dia. CIDH | 2 |
| 7A | 90 | 5? | 36" CIDH piles, | Check foundation capacity | 1 |

| | | | | | |
|---|---|---|---|---|---|
| 5 | 60 | 4 | 24" CIDH, 30" Soldier piles | Check foundation capacity | 0 |
| 7B | 100 | 6? | 36" CIDH piles | Check foundation capacity | 1 |
| 8 | 150 | ? | 18" CISS piles | Check foundation capacity | 2 |
| Total number of borings (minimum scope w/o Structure 5) | | | | | 14 |
| For any new retaining wall(s): 1 boring every 200 ft | | | | | |

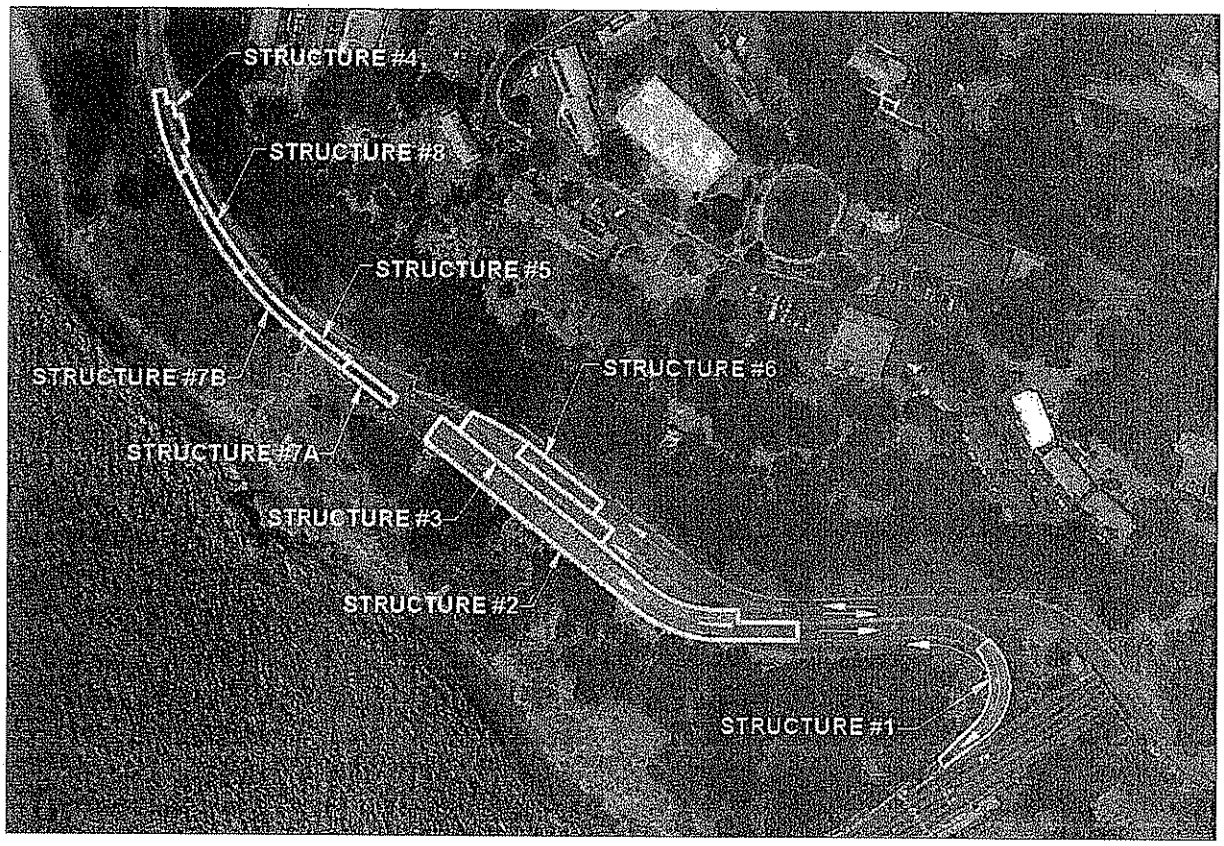
- For all structures, it is assumed that borings can be drilled from (top) deck. For Structures 1 and 2, field review is needed to determine if borings may be drilled from roadway shoulder areas alongside the bridge. For Structures 3 and 6, roadway width appears to be insufficient for placement of borings on roadway. Field review is required. These single-lane bridges may need to be closed and night-time drilling may be necessary.
- Hard drilling and challenging logistics is anticipated. Schedule and progress depends on weather conditions and permit requirements.
- Flagged traffic control is anticipated.

i) Perform soil and rock strength testing in-situ if possible (standard penetration in soil, pressuremeter in rock) and in laboratory to obtain design properties and strengths. Conduct corrosion evaluation based on testing of soil samples per Caltrans Corrosion Guidelines.

## TASK 5 – SEISMIC STRATEGY REPORTS / SEISMIC RETROFIT REVIEW

AECOM will produce a seismic strategy report meeting Caltrans/FHWA requirements for the 8 structures. All of the structures shown below, except Structure 5, met Caltrans screening criteria for retrofit. Local ownership of the structures and entry into the NBIS must be secured before the HBP applications can be filed. Once the structures are entered into the NBIS by Caltrans, an application will be prepared to secure funding for preparation of the seismic strategy report. This report will be prepared to define a retrofit strategy and associated construction cost estimate for review and approval by Caltrans/FHWA. Subsequent to final strategy determination and approval by Caltrans, HBP applications will be prepared to secure funding for construction. The seismic evaluation and strategy development will be performed and documented in accord with the Caltrans guidelines in force at the time of the NTP.

The following are the typical steps involved in the evaluation and preparation of a seismic retrofit strategy for each of the subject structures. A description of each of the structures [1-8] follows the scope.




## 5.1 Review Existing Viaduct Data

Upon receiving a Notice to Proceed (NTP), AECOM will assemble and thoroughly review all available information about each structure and its site (as-built bridge plans, planning documents, inspection/maintenance reports, foundation reports, etc.) in order to select critical bridge components and physical terrain features on which to concentrate during the field review.

The following is an excerpt from *Local Assistance Program Guidelines: Seismic Safety Retrofit Program, Section 7.8 - Mandatory Field Reviews: Objectives;*

Field reviews for seismic retrofit projects are mandatory. The objectives of field reviews for seismic retrofit projects are also different in several ways from typical local agency projects as outlined in Chapter 7, "Field Review," of the LAPM. The objectives of a seismic project field review are to:

- Begin to scope the project. (The project will not be fully scoped until after the strategy meeting.)
- Verify that the As-Built plans accurately represent the existing conditions.
- Check for modifications that would affect the seismic response of the structure.
- Dimension any members that are not accurately shown on the As-Built plans.

- If no As-Built plans are available, measure and dimension all pertinent structural members using 3D Scan survey findings for superstructure and column member sizes, with additional X-ray scans columns to determine approximate main reinforcement, and ground penetrating radar to determine approximate foundation size.
- Check for new conditions that would be affected by construction work.
- Discuss environmental considerations.

## 5.2 Mandatory Field Review

AECOM will coordinate with Caltrans District and Structures Local Assistance personnel as required to schedule the field review, including the appropriate representatives. Checklists for inspection of the site will be prepared in advance to expedite the process.

It is anticipated that a representatives from each discipline will attend (environmental, civil, survey, hydraulic, geotechnical, bridge, etc.) and participate in this critical site visit. In order to minimize travel expenses, the site visit will be scheduled to coincide with the kickoff meeting.

A letter report, summarizing the findings and documenting the critical features of each structure involved will be prepared. A photo exhibit will be attached to the letter to illustrate the key features and findings.

## 5.3 As-built Seismic Analysis

The seismic evaluation of the subject structures will be based on the latest performance-based criteria as defined in the Caltrans Seismic Design Criteria (SDC).

The initial analysis will be a gravity analysis both to determine dead and live load forces in the substructure and to verify the model. Response spectrum dynamic analyses, by modal superposition, will then be performed utilizing appropriate spectra specified in the current criteria. A sufficient number of modes will be used to capture a minimum of 90 percent mass participation.

Displacement ductility methods will be the basis for evaluating the vulnerability of the structure. Displacements from dynamic analyses, using cracked section properties, are taken as the seismic demand. Once the bents have been analyzed, foundation elements will be evaluated for the plastic hinging moments at the bases of the columns. Again, pseudo non-linear approaches (e.g., rocking analysis) will be utilized, if necessary, to evaluate whether limited pile failure in pile foundations would shed load from the pier under consideration, and thereby eliminate the need for retrofitting.

### Determine Retrofit Alternatives

AECOM will review the analytical results and develop a set of possible retrofit measures to correct the identified deficiencies. The total possible options will be reduced to one or two schemes considered feasible. As-retrofit seismic analyses will be produced to evaluate the ability of each scheme to achieve the desired result. For each alternative, tables will be developed showing the demand versus capacity of all major components of the structures.

### Prepare Cost Estimates of Alternatives

Cost estimates will be developed for the most promising of the strategies to determine which will be the most cost-effective. Current pricing data representative of the area in which the bridge is located will be used.

## DESCRIPTION OF THE STRUCTURES

### Structure 1

Structure 1 was originally constructed in 1964. The superstructure was retrofitted with longitudinal cable restrainers in 1993. This structure was assigned the Caltrans bridge number 34U0003.

The structure is a 218.0 ft long, 25.0 ft wide, five-span, out-rigger column bents structure. The structure is on a sharp curve radius of 68.0 ft and it makes an approximately 100° turning angle from the beginning of the bridge TU5 to the end of the bridge at Bent 2. The structure is comprised of structural steel I-girders with a 6" thick RC deck slab.

The abutment at the beginning of the bridge is a high cantilever abutment on a spread footing. There is a long tall retaining wall on a spread footing along the south side of the abutment. The abutment at the end of the bridge is cantilevered out with steel seat extensions.

Bents TU1 and TU2 consist of a concrete bentcap that is integral with the concrete column on the west support and is simply supported on a bronze bearing assembly on the east support. The east supports share a column with the Bay Bridge.

Bents TU3 and TU4 are moment frame bents in which the bentcap/columns are integrally connected with the superstructure.

### Structure 2

In 1964, the older structure was torn down and a brand new steel bridge was built. While the majority of the bridge is new, the west abutment at TU21 existed when the bridge construction was performed. This structure was assigned the Caltrans bridge number 34U0004.

A Minor retrofit was performed in 1991. The structure was again retrofitted in 1993, which consisted of fixing the superstructure connections to the abutment, modifying the column base connections, and adding restrainer cables.

This structure is a 580 ft long, 45 ft wide, nine-span structure. The east portion of the structure has four spans, with two outrigger column bents and one concrete column C-bent. The east portion starts on tangent and turns on a sharp curve at the second span. The west portion of the structure is on tangent and has five 50ft spans supported by six-20ft steel braced frame towers. This superstructure is comprised of structural steel I-girder with a 6.5" thick RC deck slab.

The abutment at the beginning of the bridge is a high cantilever abutment on spread footing. There is a long tall retaining wall on spread footing along the north side of the abutment. The abutment at the end of the bridge has a steel seat extension with anchorage both vertically and horizontally.

In the longitudinal direction, all the lateral loads of the bridge would be transferred to the abutment and the bridge towers. Bent TU7 is a concrete column C-Bent supporting the structure.

Bents TU8 and TU9 are moment frame bents in which bentcap-columns are integrally connected with the superstructure. Bents TU10 to TU20 are braced-frame bents supported by steel columns on concrete pedestals.

When the lateral demand exceeds the capacity of the bent diagonal bracing (shear capacity of the three 5/8"rivets), or the capacity of the connections to superstructure, the structure will become unstable and will collapse in the transverse direction.

The west portion of the structure is a 370-ft straight bridge consisting of six 20-ft wide steel towers with 50-ft clearance in between. Each tower is braced transversely and longitudinally. Tower steel columns are supported by concrete pedestals with transverse concrete grade beams. The superstructure beams are equally spaced and are aligned parallel to the TU Line.

**Structure 3**

In 1964, the older structure was torn down and a brand new steel bridge was built. While the majority of the bridge is new, some footings remained unchanged or reconstructed with new footings. This structure was assigned the Caltrans bridge number 34U0005.

Minor retrofit was performed in 1991. The retrofit fixed concrete spalls at various locations and painted steel members of the structure. Further structural retrofit was performed in 1993. The retrofit included fixing superstructure connections to abutment and column base connections, and adding restrainer cables.

This structure is a 252 ft long, twelve-span, steel brace frame bents structure. It is 25' wide at the east portion and 45' wide at the west portion (divided by LT9). All thirteen bents (LT1 to LT13) are equally spaced at 21' on center supported by steel columns on concrete pedestals. The superstructure is comprised of structural steel I-girder with 6.5" RC deck slab.

The abutment at the beginning of the bridge is a high cantilever abutment on spread footing. There is a long tall retaining wall on spread footing along the north side of the abutment. The abutment at the end of the bridge has a steel seat extension with anchorage both vertically and horizontally.

Bent LT8 and LT9 are also braced longitudinally as they are expected to take partial longitudinal lateral force.

**Structure 4**

The Bridge was built 1932 and modified in 1960's to accommodate increased traffic. Further, in 1991 minor renovation works was conducted; like painting the corroded steel surface, replacing thick A/C overlay by a thinner one, filled cracks and minor holes in concrete surface and alignment of bracings, based on report prepared by, Moffatt & Nichol Engineers.

Overall length of the bridge is 161'-0" with high cantilever and stepped abutments at both ends. The Bridge superstructure consists of 8.5" thick concrete slab, 21" WF steel girders and cross beams. There is an expansion joint at Pier 4. All Bents are braced frame bents supported by steel columns on concrete pedestal.

**Structure 5**

We have limited as-built drawings for this structure, and no other information is available. In 1996, a landslide washed away the existing bridge at this location. That same year, a replacement

structure was designed and constructed. The original structure, Structure Number 7, can still be found at both ends of this structure.

The bridge is oriented in a north-south direction, and carrying two lanes of traffic between Treasure Island and both the Bay Bridge and Yerba Buena Island. The structure is a simple span Precast Prestressed concrete I-girder bridge, and has essentially a straight alignment with no skew at either end.

The length of the bridge is 65.5', while the width of the bridge is 35.2' at the south abutment and 31.5' at the north abutment. Five prestressed I-girders are spaced along the length of the bridge, with a midspan cross diaphragm of approximately 10" x 20", and full height end diaphragms at both abutments of unknown thickness.

At both ends of the bridge, girders are supported by seat-type abutments, which are immediately adjacent to older portions of the structure at each end and therefore do not have a backwall which can be mobilized. It is assumed that the abutments are supported by CIDH piles, and that the girders have a nominal positive connection to the pilecap. Available seat width at both abutments is 24".

**Structure 7A & 7B**

There are no as-built drawings for this structure, and information from 1950's showing that the bridge was part of the original bridge and therefore assumed to be built in 1937. The structure was modified in 1996, when a portion of this bridge was washed away by a landslide and replaced by a precast prestressed I-girder bridge.

Therefore, the original extent of Structure number 7 was from the north abutment of Steel structure number 2 to the south abutment of structure number 8, and in its present arrangement has Structure number 5 placed within that original range.

The following bridge description describes only the existing bridge portion between structure number 5 and structure number 8; it should be inferred that the bridge portion between structure number 5 and Steel structure number 2 is identical in layout and composition. Please refer to "Year Modified/ Retrofitted".

The bridge is oriented in a north-south direction along a curved alignment, and provides two lanes of traffic between Treasure Island and both the Bay Bridge and Yerba Buena Island. The bridge is a multi span cast-in-place, reinforced concrete slab bridge on integral bentcaps supported by Cast-In-Steel Shell piles.

The bridge consists of 8 continuous spans, resulting in a longitudinal 6 - bent frame with cantilevered ends at both ends of the structure for an approximate longitudinal bridge length of 103 feet. The bents are typically spaced at roughly 18.0' on-center, with the first and last spans consisting of 6' cantilevered slabs ending on 12" transverse edge girders. These edge girders frame into the 13" wide continuous edge girders on one side and into the retaining walls on the other end.

The width of the structure is 19' wide from the underside of the structure, which is measured from the outside edge of a continuous edge girder to what is assumed to be a retaining wall at the east end. Considering that a two lane road is a minimum of 24' without accounting for shoulders, it is reasonable to infer that the structure cantilevers at least 5' beyond the visible edge of the supporting retaining wall, and is symmetrical about the longitudinal centerline of the bridge.

In the transverse direction, rectangular 13"x 26" bentcaps transfer lateral and vertical loads from the deck to 2 - 18" diameter cast-in-steel-shell piles, and to the assumed retaining wall of unknown wall thickness on the east side of the bridge. The CISS piles are typically spaced 8.0' apart along the centerline of the bentcap, and the west pile is 3.5' from the outside edge of the 13" wide edge girder. There is no available information as to the depth to which the CISS piles were driven, although in one location were the existing slope has eroded, an exposed height of 8' feet below the top of the original ground is visible.

**Structure 8**

There are no as-built drawings for this structure, and information from 1950's showing that the bridge was part of the original bridge and therefore assumed to be built in 1937. The structure has not been modified nor retrofitted.

The bridge is oriented in a north-south direction along a curved alignment, and provides two lanes of traffic between Treasure Island and both the Bay Bridge and Yerba Buena Island. The bridge is a multi span cast-in-place, reinforced concrete slab bridge on integral bentcaps supported by cast-in place piers.

The bridge consists of 9 continuous spans, resulting in a longitudinal 8 - bent frame with a cantilevered end at the south end of the structure and a simple bearing support at the north end. Bents are typically spaced at roughly 18.0' oc, for a total of 8 bents and an approximate longitudinal length of 149 feet.

The width of the structure is 18' wide from the underside of the structure, which is measured from the outside edge of a continuous edge girder to what is assumed to be a retaining wall at the east end. Considering that a two lane road is a minimum of 24' without accounting for shoulders, it is reasonable to infer that the structure cantilevers at least 6' beyond the visible edge of the supporting retaining wall.

In the transverse direction, rectangular 24"x 22" bentcaps transfer lateral and vertical loads from the deck to a cast-in-place pier roughly 6.0' from the outside edge of the edge girder, and to what is assumed is another CIP pier beyond the edge of the retaining wall seen at the east underside of the superstructure. These CIP piers are 24" square, which approximately 10" beneath the bentcap transitions to a 36" diameter cast-in-place pier. At the wall, the edge of the 36" CIP pier is visible, although it seems as if a retaining wall was cast flush with the edge of the 24" CIP pier face, in order to retain the hillside. The CIP piers were hand-dug, but there is currently no information as to how far beneath the surface of the soil the bottom of the piers is.

The south end of the bridge abuts to a very similar bridge structure, structure number 7, with each joining end being a cantilevered slab ending on a 12" transverse edge girder. The north end of the bridge consists of a bentcap supported on two CIP piers on which the slab rests; building paper or similar joint separator can be seen between the bentcap and the slab and edge girder, indicating that this end of the bridge allows for minimal bridge thermal expansion and contraction. In neither of the abutments are there backwalls which can mobilize soil, and in both cases a maximum of 1" separation exists between structural elements.

## 5.4 Draft Strategy Report

The results of the analyses and proposed strategies for retrofit will be described in the Draft Strategy Report. This report will describe the structure, analysis methods and models used,

analytical results, evaluation of structural components, and recommendations for retrofit. A cost estimate for the recommended strategy will be included in the report. The estimate will include associated costs for utilities, right-of-way and approach roadway works, which may be reasonably anticipated at the time. This draft report will be submitted for review one week before the scheduled strategy meeting.

### 5.5 Strategy Meeting

AECOM will schedule and participate in a strategy meeting to present the evaluation procedures used, describe our findings and discuss proposed retrofit measures. Comments from the Caltrans will be discussed, meeting minutes recorded and distributed to all the attendees within 5 working days of the meeting date.

### 5.6 Revise Strategy / Update Final Strategy Report

After the strategy meeting, alternative retrofit strategies and/or supplemental analyses agreed upon by the attendees will be prepared and resubmitted for review. Upon final strategy determination, the Final Strategy Report will be produced. It will include Draft Strategy Report, Strategy Meeting Minutes; response to the comments; a brief statement of the Final Strategy Determination, its cost impact, and recommendations for action.

## TASK 6 –ENVIRONMENTAL DOCUMENT

### 6.1 Preliminary Environmental Study (PES) form

AECOM will prepare the Preliminary Environmental Study (PES) form and coordinate a field review with the project team and Caltrans, District 4 staff to confirm preliminary determinations from the project initiation process. The information contained with the PES form will serve as the foundation for the environmental team to begin technical analysis, early consultation with applicable Federal and State agencies and provide preliminary determinations on both the potential significant effect(s) and the appropriate level of environmental documentation.

*Deliverables – PES Form*

### 6.2 Environmental Technical Studies

**6.2.1 Water Quality Analysis** – AECOM will analyze the two viaduct build alternatives to characterize existing water quality of both surface waters and groundwater found in the project area. AECOM will prepare a Water Quality Assessment (WQA) to assess the potential impacts from the proposed project on water quality. Background research shall be conducted to determine the geologic, topographic, soils, and water resources associated with the proposed project site to provide baseline information for this study. The WQA will describe the aspects of the physical environment relative to water resources, and summarize the aspects of the proposed project that could affect these resources during construction and following completion of the bridge replacement project.

If it is determined that the construction or operation of the proposed project could adversely affect water resources, preliminary mitigation measures to avoid or reduce these impacts will be described in the WQA. Mitigation measures are expected to include Best Management Practices (BMPs), adopted agency standards and specifications, and preparation of a Stormwater Pollution Prevention Plan (SWPPP) prior to construction.

*Deliverables – Water Quality Report*

**6.2.2 Natural Environment Study** – Biological services to be conducted by AECOM will include preparation of a Natural Environment Study and coordination with various state and federal agencies. AECOM will prepare the NES through use of qualified botanists, wildlife biologists, and fisheries biologists familiar with the biological resources in San Francisco Bay. During preparation of the NES, AECOM will review relevant background materials including United States Fish and Wildlife Service (USFWS) lists of federally listed species with potential to occur in the study area, the California Department of Fish and Game's (DFG's) Natural Diversity Database (NDDB), and the California Native Plant Society's (CNPS's) Electronic Inventory of Rare and Endangered Plants of California. AECOM will also review aerial photographs of the project site and environmental documents previously prepared in support of the proposed project.

AECOM will subsequently conduct a survey of the study area. Biologists will document existing biological resources in the study area, prepare a habitat map, assess the potential of the site to support special-status species, and record all plant and wildlife species observed. The location and extent of invasive weed populations will also be noted.

Based on information obtained through a review of existing documentation and the field reconnaissance, AECOM will prepare the NES in accordance with the current format of the Caltrans SER website. The NES will include:

- a description of methods, including required studies and survey dates;
- an environmental setting section describing the habitat types present in the study area;
- a map depicting locations of known or potential sensitive biological resources on the project site, including sensitive habitats and special-status species;
- a map depicting the location and extent of invasive weed infestations in the study area, if applicable;
- a map extent and location of potentially jurisdictional Waters of the U.S., including wetlands;
- a description of important biological resources in the project area, including special-status species and sensitive natural habitats;
- lists of plant and wildlife species observed at the site;
- recommendations for any additional surveys, if required;
- a description of potentially significant impacts on biological resources resulting from implementation of the proposed project;
- mitigation measures which would avoid or minimize impacts on biological resources;
- a cumulative impacts discussion; and
- references and personal contacts.

If follow-up focused surveys for special-status plant or wildlife species are determined necessary, these surveys can be performed by AECOM at the appropriate times of the year under a separate authorization.

*Deliverables – Natural Environmental Study*

**6.2.3 Visual Impact Analysis** - AECOM will prepare the technical report and assess the potential visual impacts of the proposed build alternatives. The visual evaluation shall consider both the "view from the road" and the "view of the road." This analysis shall be conducted in accordance with the FHWA manual, Visual Impact Assessment for Highway Projects (March 1981). The evaluation shall define the visual environment of the project alternatives, provide a map of the view shed, and identify key views (maximum 6 key views). The impact assessment shall use the Caltrans/FHWA significance criteria. Simulations for the build alternatives shall be prepared for the 3 key views (maximum 6 simulations). The impact analysis shall address permanent, temporary, direct and indirect impacts. Measures to avoid minimize or compensate for project effects shall be identified, and shown graphically with post mitigation simulations.

*Deliverables – Visual Impact Analysis Report*

**6.2.4 Cultural Resources** – The Cultural Resource effort in support of the EA will be conducted jointly by AECOM. An Area of Potential Effects (APE) Map will be prepared in consultation with SFCTA and Caltrans; it will take into account APEs for recent projects on the island, including the SFOBB replacement project and the YBI Ramps project. Approval of the APE map shall be completed before the initiation of field investigations. AECOM will also communicate with local Native American organizations and individuals to facilitate the consultation requirements of Section 106 of the NHPA. AECOM will contact the Native American Heritage Commission (NAHC) to request a search of the NAHC Sacred Lands File and a list of appropriate regional Native American contacts. AECOM will send letters to each contact on the NAHC list and follow-up with at least two telephone calls, if necessary, to inquire if the Native American community has any particular concerns with the project.

Archival research shall include, but not necessarily be limited to, an examination of records maintained at the San Francisco County Assessor's and Recorder's office, historic maps, written county histories, and local inventories of historic buildings. In addition, a records search will be conducted at the Northwest Information Center (NIC) at Sonoma State University. Information gathered at County archives, the NIC, and other sources shall provide an assessment of the archaeological and historical sensitivity of the area. This research will also allow for a detailed accounting of documented prehistoric and historic-era sites, features, buildings, structures, and artifacts that have been identified within and in the vicinity of the APE. This data will provide the baseline upon which subsequent field studies will be conducted.

The team will conduct pre-field, field, and reporting tasks required to address archaeological sites, historical resources, and areas of sacred and traditional concern to Native Americans that may exist within the area that would be affected by the proposed project. AECOM will conduct studies necessary to provide an Archaeological Survey Report (ASR). AECOM will prepare the Historic Resources Evaluation Report (HRER). The HRER will assess the nine viaduct structures for potential eligibility for listing in the

National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). The HRER will be accompanied by DPR523 inventory forms for resources within the APE, and will be prepared in accordance with the Caltrans Section 106 Programmatic Agreement (PA).

AECOM will prepare the Historic Properties Survey Report (HPSR), the Finding of Effect (FOE), and Draft Memorandum of Agreement (DMOA). The FOE will address both alternatives and their effects on identified eligible or listed properties in one document. The DMOA will provide a basis for negotiation for the signatory parties, and will suggest a menu of mitigation measures.

All documents will be prepared to current Caltrans standards using methods outlined in Caltrans' *Standard Environmental Reference,* Vol. 2.

***Deliverables – ASR, HRER, HPSR, FOE, DMOA***

### 6.3 Categorical Exemption/Categorical Exclusion Form

AECOM will prepare a Categorical Exemption/Categorical Exclusion form for the Yerba Buena Island Viaducts Project. The form will be revised subsequently to client and Caltrans review.

***Deliverables – Water Quality Report***

## TASK 7 – INITIATE RIGHT OF WAY TRANSFER

Towill will perform research and field surveys to prepare plat maps and legal descriptions for a total of 9 easements on Yerba Buena Island. They will perform research to gather record documents at the offices of the U. S. Navy, Caltrans, and the County of San Francisco. If necessary, they will perform field work to recover and measure boundary monumentation for the project. Following research and field investigation activities, Towill will prepare a plat and legal description for each of the nine (9) easements identified as Structure Nos: 1, 2, 3, 4, 5, 6, 7A 7B, and 8.

Delivery will be two (2) signed and stamped original legal descriptions and accompanying 8.5" x 11" plat maps for each structure, and electronic pdf files of same.

## PHASE 2

## APPROVED STRATEGY DESIGN

Phase 2 Scope of Work includes the design and preparation of all Plans, Specifications, and Estimates (PS&E) for the retrofit of the Viaducts per Caltrans approved Seismic Retrofit Strategy requirements. This PS&E effort includes all stage construction and construction area sign details. It assumes no rehabilitation work, or structure replacement is required.

### Task 8 – Prepare Plans, Specifications, and Estimates

AECOM will prepare base maps and complete 65% plan sheets using Metric units, in conformance to Caltrans and City standards. The design will be prepared using MicroStation and InRoads.

#### 8.1 Project Management and Meetings

AECOM will continue to perform project management activities as defined previously in this scope of work in Project Management and Meetings Task 1.

#### 8.2 Task 8.2 Roadway Plan Submittal (65% Plan Sheets)

The following 65% Roadway Plans will be prepared:

- Title Sheet & Key Map
- Layouts and Construction Details
- Erosion Control Plans & Details
- Construction Area Signs and Quantities
- Stage Construction, Traffic Handling Plans and Quantities
- Pavement Delineation Plans, Quantities, and Details
- Sign Plans, Quantities, and Details
- Summary of Quantities

***Deliverables: 65% Roadway Plans***

#### 8.3 Retrofit Design Submittal (Unchecked Plans)

AECOM will complete this task to prepare draft Structures Retrofit Plans in conformance with the approved Strategy. The final product is a draft set of designed and detailed structural plans. The activities include, but are not limited to:

- Perform structural analysis and develop draft Design
- Prepare draft Structure Plan Sheets
- Prepare Memorandum to Specification Engineer

The structure design shall conform to the current edition of the Bridge Design Specifications (BDS) and updated design policies issued by Caltrans DES. Contract Plans shall be prepared in accordance with the most current editions of applicable Caltrans manuals and other documentation. Current Bridge Standard Details Sheets (XS-Sheets) and current Standard Plans shall be incorporated into the Contract Plans where applicable.

For the Seismic design, the software program SAP2000, will be used. The final seismic modeling will include the time-history analysis for six ground motions for both the Functional Evaluation Earthquake (FEE) and the Safety Evaluation Earthquake (SEE) earthquakes. The FEE level earthquake is the level at which the structure cannot experience damage. The SEE level earthquake is the no-collapse level or lifeline criteria. The structure design shall be consistent with the current Bay Bridge criteria which describes the FEE event as one with a return period of 92 years or a 80% probability of exceedance within the 150-year design life and the SEE event as one with a return period of 1500 years or a 10% probability of exceedance within the 150-year design life.

Each plan sheet shall bear the State of California Registered Professional Engineer registration seal, license number and registration certificate expiration date of the engineer who is in responsible charge for developing the plan. Each plan sheet shall show the name and address of sponsoring agency and consultant in the blocks provided below the engineer's registration stamp. Each plan sheet shall show the name of the engineer who prepared the design.

***Deliverables: Unchecked structure plans***

### 8.4 Unedited Specifications

Unedited Standard Special Provisions (SSP's) will be submitted to reflect the level of detail provided in the plans. It is assumed the "Up-Front" legal/boilerplate portion of the specification will be provided by SFCTA.

***Deliverable: Unedited Specifications***

### 8.5 65% Quantities and Estimates

65% quantity sheets will be prepared and calculations performed for all major items of work corresponding to Caltrans BEES list. All unit prices will conform to the latest version of the Caltrans Unit Cost Data Book.

***Deliverable: 65% Quantities and Estimate***

### 8.6 Finalize R/W Requirements

ARWS will provide ongoing project management services related to the property acquisitions, coordination with review appraiser and Caltrans R/W staff, and preparation of draft R/W Certification. This will also include an appraisal report for partial acquisitions, acquisition services, provide escrow monitoring and condemnation support.

Towill will provide the following:

**Ground Control Survey** - A ground Control survey using a combination of GPS and "conventional" land surveying equipment and techniques (traversing using a total station instrument and differential leveling using an automatic or digital level) will be employed to establish horizontal and vertical control. The control will be based upon the California Coordinate System of 1983, Zone 3 calibrated to the published values for the Caltrans Bay Bridge Control Network. Elevations will be referenced to the National Geodetic Vertical Datum of 1988 as shown in the Caltrans Vertical Control Network. The Control Survey will be adjusted with Star*Net Version 6.1 least squares adjustment software.

During the control survey, existing property corner monuments will be located and surveyed to determine the adjoining ownership and Caltrans Rights of Way.

We will establish new control points necessary for the monumentation of the new Right of Way boundary. Each control point will be set with a semi-permanent monument, such as a rebar and Towill Cap, PK nail with a washer, survey spike, or equivalent.

**Document Research and LandNET Base Map** - Perform research to acquire existing public record maps at Caltrans and at County offices. Field reconnaissance will be performed to recover monumentation adequate to re-establish the existing Caltrans and adjoiner boundary lines. It is anticipated that two preliminary title reports will be required.

**Appraisal Mapping** - Appraisal mapping will be prepared to facilitate design engineering and land transfer negotiations. Existing and proposed boundary lines will be overlaid on existing topographic information (either provided by client or developed as part of this project). Appraisal mapping will be prepared in AutoCAD following guidelines established in the Caltrans Right of Way Manual, and shall be at a scale of 1:500. It is recommended that Client obtain a recent sample appraisal map from Caltrans to assure conformance to District 4 Standards. This proposal assumes two map sheets will be prepared.

**Right of Way Mapping** - Following the appraisal process, right of way mapping will be prepared in AutoCAD to document the final project right of way. Final Mapping will be at a scale of 1:500 and shall be prepared following guidelines established in Caltrans Right of Way Manual. It is assumed that two map sheets will be prepared.

**Record of Survey** - A Record of Survey and will be prepared and filed pursuant to the requirements of the State of California Professional Surveyors Act and the County of San Francisco guidelines.

***Deliverable: Final Hardcopy Maps***

## Task 9 –Foundation Reports

### 9.1 Prepare Draft Foundation Report

1. Perform foundation design
    - Refine geologic cross sections. Conduct slope stability evaluations in 5 to 8 slope sections.
    - For Structures #1, 2, 3, 4, & 6, evaluate existing foundation capacity or design new foundations. Analysis and design is for spread footings cast against neat rock or drilled piles with rock sockets per Caltrans LRFD methods addressing sloping ground and soil-structure interaction (SSI) to support AECOM's structure dynamic response analysis.
    - For Structures #5, 7A, 7B, & 8, evaluate existing foundation capacities only. Should structure retrofit or other improvement be required, additional investigation may be required at additional cost.
        - Where sliding is not a concern, expect overexcavation and replacement with suitable compacted soil and/or reinforcement (geogrids etc).

- Where sliding is a concern, stabilization of the slope and/or replacement by a full-width structure. Stabilization can involve removal of unstable soil and replacement with mechanically stabilized fill, placement of pin piles, or construction of new anchored retaining wall.

***Deliverables: Draft Foundation Report***

### 9.2 Prepare Final Foundation Report

1. Prepare Final Foundation Report foundation design
   - In conformance with the approved Strategy Design, EMI will prepare the Final Foundation Report.

***Deliverables: Final Foundation Report***

## Task 10 - 100% Plans Specifications and Estimate

AECOM will prepare this Task. This task includes all efforts required to prepare Checked Structures Plans, Special Provisions and Quantities (PS&E). The final product is a Checked set of designed and detailed and checked structural plans along with checked quantity calculations, special provisions and estimate identified contract bid items. The activities include, but are not limited to:

- Perform an independent structural analysis
- Check the Design and Plan Sheets
- Perform a Constructability Review (CR) of Unchecked Details
- Prepare final Quantities
- Perform an independent check of the draft Quantities
- Prepare Memorandum to Specification Engineer

### 10.1 Project Management

AECOM will continue to perform project management activities as defined previously in this scope of work in Project Management and Meetings Task 8.1.

### 10.2 Final PS&E

AECOM will respond to all comments on the submittal of Tasks 8.2, 8.3, 8.4, and 8.5. AECOM will prepare Independent Check Calculations for the design during this stage, including a check of the Plans, Specifications, and Estimate.

Each plan sheet shall bear the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date of the engineer who is in responsible charge for developing the plan. Each plan sheet shall show the name and address of sponsoring agency and consultant in the blocks provided below the engineer's signature and registration stamp. Each plan sheet shall show the name of the engineer who prepared the design.

A qualified engineer who is registered in the State of California shall independently check each design. Each plan sheet shall show the name of the engineer who performed the independent check. The calculations for both the design and the independent design check shall be submitted as part of the PS&E Submittal. The respective calculations shall bear

the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date of the design engineer and independent check engineer.

*Deliverables - Final PS&E Submittal*

- 4 sets of prints of checked, signed plans
- 4 copies of edited Special Provisions
- 1 copy of edited Special Provisions on a microcomputer disk
- 1 copy of Memo to Specification Engineer/Estimator
- 4 copies of cost estimate
- 2 copies working day schedules
- 4 copies of Final Foundation Report
- 1 copy of the consultant Quality Control Checklist

### 10.3 Final PS&E Approval

AECOM will respond to all final comments and provide Final PS&E documents to SFCTA as follows:

*Deliverables - Final PS&E Approval*

- 4 sets of prints of checked, signed plans
- 1 electronic copy of checked, signed plans (.dgn and .par files)
- 4 copies of edited Special Provisions
- 1 copy of edited Special Provisions on a microcomputer disk
- 4 copies of cost estimate
- 4 copies of Final Foundation Report if revised from Final submittal
- Resident Engineers File

**Project Assumptions:**

- If Viaduct replacement is considered as the most economical retrofit strategy it shall maintain existing roadway widths and not require additional environmental impacts to require a EIR
- A fast track Project Schedule is assumed necessary to meet a Ready-to-List date to match that of the YBI Ramps project
- To maintain a fast track project design schedule, at-risk design is assumed required to initiate the unchecked details prior to the approval of the approved Environmental Document
- This project is considered a Safety Improvement project of Treasure Island Road and Hillcrest Road. While the primary focus of this Project is Seismic Retrofit of the existing Viaducts along the West Side of YBI, it also provides for traffic signing and permitting to allow closure of the Westbound Onramp to I-80 (Structure 1) to all public traffic with the exception of buses and emergency vehicles

- The Environmental document is assumed to be a Cat-X with special studies for this Safety Improvement Project
- All road closures will be carefully staged to coordinate with the YBI Ramps project and Caltrans on-going I-80 Projects
- Macalla Road may be considered the only access to Treasure Island during bridge retrofit construction
- It is assumed that roadway profile for all Viaduct structures will not change.
- Structure 1 horizontal alignment will remain unchanged
- Weekday & daytime foundation drilling is anticipated, except possible night-time drilling for Structures 3 and 6.
- Drilling through concrete deck is permitted (10" core holes to be professionally repaired)
- Staging area for geotechnical equipment can be provided near TI causeway
- No investigation of hazardous materials are assumed necessary
- No aerially deposited lead/environmental sampling or testing are assumed necessary
- No access road construction in slopes is proposed
- No pavement rehabilitation/life-cycle cost analysis is assumed
- No determination of borrow sites is assumed

**Yerba Buena Island Westbound Off and On Ramps**
**AECOM Amendment 3 for Final**
**Plans Specifications and Estimate Scope of Work**

This scope of services has been prepared for the San Francisco County Transportation Authority (Authority) in order to complete Final PS&E for the Construction of the Yerba Buena Island Ramps Project. The Authority has requested that the scope of services be broken into 3 phases due to funding constraints. The following scope represents work for Phase 3.

This Amendment #3 supplements Amendment #2 to complete the design effort through Final PS&E.

**PHASE 3**

**Task 8 Complete 65% Plans Specifications and Estimate**

8.1 PM & Meetings & QA/QC
8.2 Title Sheet & Key Map
8.3 Typical Cross Sections
8.4 Layouts and Construction Details
8.5 Profiles, Superelevation Diagrams
8.6 Temporary Water Pollution Control Details and Quantities
8.7 Erosion Control Plans & Details
8.8 Contour Grading
8.9 Drainage Plans, Profiles, Details and Quantities
8.10 Sanitary Sewer Plans, Details and Quantities
8.11 Utility Plans, Profiles, Details and Quantities
8.12 Construction Area Signs
8.13 Stage Construction And Traffic Handling Plans, and Details
8.14 Pavement Delineation Plans, Details and Quantities
8.15 Sign Plans, Details and Quantities
8.16 Summary of Quantities
8.17 Retaining Wall Plans
8.18 Electrical Street, and Bridge Lighting, Details and Quantities
8.19 Prepare Highway Planting Plans, Plant List
8.22 Bridge Design Submittal (Unchecked Plans)
8.23 Unedited Specifications
8.24 65% Estimates
8.25 Storm Water Data Report
8.26 Transportation Management Plan
8.27 Right-of-Way
8.28 Risk Management Plan

**Task 10 95% Plans Specifications and Estimate**

10.1 PM & Meetings & QA/QC
10.2 Roadway Plans 95% PS&E
10.3 Bridge Design Submittal (Checked Plans)
10.4 Caltrans and Local Agencies Review 95% PS&E

**Task 11 Final Plans Specifications and Estimate**

11.1 PM & Meetings & QA/QC
11.2 Prepare and Submit Final PS&E
11.3 Final Bridge Design Submittal
11.4 Final PS&E Approval
11.5 Isometric Shop Drawings (ISD)
11.6 Combine Bid Packages A&B and submit to HQ

11.7 Resident Engineers File
11.8 Ready to List

**Task 12 Building 10 Relocation Feasibility Study**

12.1 Prepare Exhibits
12.2 Cost Evaluation
12.3 Utility Connection Identification
12.4 Environmental Clearance Evaluation
12.5 New Location Evaluation
12.6 Existing Location Evaluation
12.7 Historical Architect Review/Alternatives
12.8 House Mitigation Report
12.9 Final Report

**Task 8 –Complete 65% Plans Specifications and Estimate**

AECOM and Moffat and Nichol (M&N) will jointly prepare the 65% PS&E to Caltrans Standards. This phase is critical to clearly define the limits of the project and provide Caltrans with unchecked plans that are acceptable to the Toll Bridge Design Group.

**8.1 Project Management and Meetings**

AECOM will continue to perform project management activities as defined previously in this scope of work in Project Management and Meetings Task 4.

**Prepare Project Base Maps and Complete 65% Plan Sheets**

AECOM will prepare base maps and complete 65% plan sheets using Metric units, in conformance to Caltrans and City standards. The design will be prepared using MicroStation and InRoads. The complete 65% plans that will be prepared as part of this Amendment #3 include, but not limited to, the following:

**8.2 Title Sheet & Key Map**

**8.3 Typical Cross Sections**

**8.4 Layouts and Construction Details**

**8.5 Profiles, Superelevation Diagrams**

**8.6 Temporary Water Pollution Control Details and Quantities**

**8.7 Erosion Control Plans & Details**

**8.8 Contour Grading**

**8.9 Drainage Plans, Profiles, Details and Quantities**

**8.10 Sanitary Sewer Plans, Details and Quantities**

**8.11 Utility Plans, Details and Quantities**

**8.12 Construction Area Signs and Quantities**

**8.13 Stage Construction, Traffic Handling Plans and Quantities**

**8.14 Pavement Delineation Plans, Quantities, and Details**

**8.15 Sign Plans, Quantities, and Details**

**8.16 Summary of Quantities**

**8.17 Retaining Wall Plans**

**8.18 Electrical, Street and Bridge Lighting, Details, and Quantities**

**8.19 Highway Planting Plans, Irrigation Plans, Details and Quantities**

***Deliverables: Complete 65% Plans***

**8.22 Bridge Design Submittal (Unchecked Plans)**

AECOM and Moffatt & Nichol will complete this task to prepare draft Structures Plans. The final product is a draft set of designed and detailed structural plans. The activities include, but are not limited to:

- Perform structural analysis and develop draft Design
- Prepare draft Structure Plan Sheets
- Prepare Memorandum to Specification Engineer

The structure design shall conform to the current edition of the Bridge Design Specifications (BDS) and updated design policies issued by Caltrans DES. Contract Plans shall be prepared in accordance with the most current editions of applicable Caltrans manuals and other documentation. Current Bridge Standard Details Sheets (XS-Sheets) and current Standard Plans shall be incorporated into the Contract Plans where applicable.

For the Seismic design, the software program SAP2000, will be used. The final seismic modeling will include the time-history analysis for six ground motions for both the Functional Evaluation Earthquake (FEE) and the Safety Evaluation Earthquake (SEE) earthquakes. The FEE level earthquake is the level at which the structure can not experience damage. The SEE level earthquake is the no-collapse level or lifeline criteria. The structure design shall be consistent with the current Bay Bridge criteria which describes the FEE event as one with a return period of 92 years or a 80% probability of exceedance within the 150-year design life and the SEE event as one with a return period of 1500 years or a 10% probability of exceedance within the 150-year design life.

Each plan sheet shall bear the State of California Registered Professional Engineer registration seal, license number and registration certificate expiration date of the engineer who is in responsible charge for developing the plan. Each plan sheet shall show the name and address of sponsoring agency and consultant in the blocks provided below the engineer's registration stamp. Each plan sheet shall show the name of the engineer who prepared the design.

***Deliverables: Unchecked structure plans***

### 8.23 Unedited Specifications

Unedited Standard Special Provisions (SSP's) will be submitted to reflect the level of detail provided in the plans. It is assumed the "Up-Front" legal/boilerplate portion of the specification will be provided by Caltrans when the YBI Ramps is combined with the YBITS 2 project.

***Deliverable: Unedited Specifications***

### 8.24 65% Quantities and Estimates

65% quantity sheets will be prepared and calculations performed for all major items of work corresponding to Caltrans BEES list. All unit prices will conform to the latest version of the Caltrans Unit Cost Data Book.

***Deliverable: 65% Quantities and Estimates***

### 8.25 Storm Water Data Report

The Storm Water Data Report identifies the waterways affected by this project, jurisdictional agencies for these waters and storm water quality issues associated with this project. The report includes a description of the proposed design pollution prevention plan to be implemented during construction as well as a description and cost estimate for permanent pollution prevention features that will be incorporated into the project design.

AECOM will prepare the final PS&E Storm Water Data Report and submit it to Caltrans for review and approval.

***Deliverable: Storm Water Data Report***

### 8.26 Transportation Management Plan

The Transportation Management Plan indicated how construction within the travel corridor can be accomplished using traffic controls and a public information campaign to minimize traffic delays and inconvenience caused by construction activities. AECOM will consider using the existing ESSSP PIO activities with regard to the ramps. AECOM will coordinate traffic management efforts with Caltrans and other local agencies and attend coordination meetings.

***Deliverable: Transportation Management Plan***

### 8.27 Finalize R/W Requirements

ARWS will provide ongoing project management services related to the property acquisitions, coordination with review appraiser and Caltrans R/W staff, and preparation of draft R/W Certification. This will also include an appraisal report for partial acquisitions, acquisition services, provide escrow monitoring and condemnation support.

Towill will provide the following:

**Ground Control Survey** - A ground Control survey using a combination of GPS and "conventional" land surveying equipment and techniques (traversing using a total station instrument and differential leveling using an automatic or digital level) will be employed to establish horizontal and vertical control. The control will be based upon the California Coordinate System of 1983, Zone 3 calibrated to the published values for the Caltrans Bay Bridge Control Network. Elevations will be referenced to the National Geodetic Vertical Datum of 1988 as shown in the Caltrans Vertical Control Network. The Control Survey will be adjusted with Star*Net Version 6.1 least squares adjustment software.

During the control survey, existing property corner monuments will be located and surveyed to determine the adjoining ownership and Caltrans Rights of Way.

Due to the continuing construction of the Bay Bridge, many of the control points near the survey area have been destroyed. We will establish new control points necessary for the monumentation of the new Right of Way boundary. Each control point will be set with a semi-permanent monument, such as a rebar and Towill Cap, PK nail with a washer, survey spike, or equivalent.

**Document Research and LandNET Base Map** - Perform research to acquire existing public record maps at Caltrans and at County offices. Field reconnaissance will be performed to recover monumentation adequate to re-establish the existing Caltrans and

adjoiner boundary lines. It is anticipated that two preliminary title reports will be required.

**Appraisal Mapping** - Appraisal mapping will be prepared to facilitate design engineering and land transfer negotiations. Existing and proposed boundary lines will be overlaid on existing topographic information (either provided by client or developed as part of this project). Appraisal mapping will be prepared in AutoCAD following guidelines established in the Caltrans Right of Way Manual, and shall be at a scale of 1:500. It is recommended that Client obtain a recent sample appraisal map from Caltrans to assure conformance to District 4 Standards. This proposal assumes two map sheets will be prepared.

**Right of Way Mapping** - Following the appraisal process, right of way mapping will be prepared in AutoCAD to document the final project right of way. Final Mapping will be at a scale of 1:500 and shall be prepared following guidelines established in Caltrans Right of Way Manual. It is assumed that two map sheets will be prepared.

**Director's Deed** - Legal descriptions will be prepared to facilitate land acquisition in the format of a director's deed. Delivery will be two deeds in hard copy and electronic format Microsoft Word document or alternatively, the legal description can be inserted into a director's deed format document by Caltrans. Client or Caltrans will facilitate filing of director's deed with county.

**Record of Survey** - A Record of Survey and will be prepared and filed pursuant to the requirements of the State of California Professional Surveyors Act and the County of San Francisco guidelines.

***Deliverable: Final Hardcopy Maps***

### 8.28 Risk Management Plan

AECOM will further develop the Risk Management Plan which includes risk identification, qualitative risk analysis, quantitative risk analysis, risk response planning, risk monitoring and control. The Risk Management Plan will follow the format on Caltrans web site and be developed through discussions with the PDT, SFOBB Risk Management Team, and project stakeholders. AECOM will coordinate risk management efforts with Caltrans and attend monthly risk management meetings.

***Deliverable: Risk Management Plan***

## Task 10 - 95% Plans Specifications and Estimate

AECOM and Moffatt & Nichol will jointly prepare this Task. This task includes all efforts required to prepare Checked Structures Plans, Special Provisions and Quantities (PS&E). The final product is a Checked set of designed and detailed and checked structural plans along with checked quantity calculations, special provisions and estimate identified contract bid items. The activities include, but are not limited to:

- Perform an independent structural analysis
- Check the Design and Plan Sheets

- Perform a Constructability Review (CR) of Unchecked Details
- Prepare draft Quantities
- Perform an independent check of the draft Quantities
- Prepare Memorandum to Specification Engineer

The structure design shall conform to the current edition of the Bridge Design Specifications (BDS) and updated design policies issued by Caltrans DES. Contract Plans shall be prepared in accordance with the most current editions of applicable Caltrans manuals and other documentation. Current Bridge Standard Details Sheets (XS-Sheets) and current Standard Plans shall be incorporated into the Contract Plans where applicable.

Each plan sheet shall bear the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date of the engineer who is in responsible charge for developing the plan. Each plan sheet shall show the name and address of sponsoring agency and consultant in the blocks provided below the engineer's signature and registration stamp. Each plan sheet shall show the name of the engineer who prepared the design.

A qualified engineer who is registered in the State of California shall independently check each design. Each plan sheet shall show the name of the engineer who performed the independent check. The calculations for both the design and the independent design check shall be submitted as part of the PS&E Submittal. The respective calculations shall bear the State of California Registered Professional Engineer registration seal with the signature, license number and registration certificate expiration date of the design engineer and independent check engineer.

***Checked PS&E Submittal***

- 13 sets of prints of checked, signed structure plans
- 1 electronic copy of checked, signed structure plans (.dgn and .par files)
- 1 copy of design calculations
- 1 copy of design check calculations
- 6 copies of edited Structure Special Provisions
- 1 copy of edited Structure Special Provisions on a microcomputer disk
- 3 copy of Memo to Specification Engineer/Estimator
- 2 copies of cost estimate
- 2 copies of original and checked quantity calculations with summary sheets
- 2 copies working day schedules
- 4 copies of Final Hydrology / Hydraulics Report
- 5 copies of Final Foundation Report
- 3 copies of complete Road Plans
- 5 copies Roadway Special Provisions (electronic)
- 1 copy of the consultant Quality Control Checklist

OSFP will review and comment on the Initial PS&E Submittal within six weeks of receipt of the complete package.

### Task 11 - Final Plans Specifications and Estimate

AECOM & Moffatt & Nichol will jointly prepare this task: The work will involve addressing comments on the Draft Structures PS&E and incorporating them into the final PS&E package. This task includes all efforts involved in the development of the overall final structures PS&E package. Activities include, but are not limited to:

- Constructability Review Meeting of draft SPS&E package
- Isometric Shop Drawings (ISD)
- Revisions to the Plans, Special Provisions, and Cost Estimates
- Combine YBITS 2 and YBI Ramps project
- Submittal to local district and Headquarters Office Engineer (HOE)
- Prepare Resident Engineers File
- Assisting Caltrans with making project ready to list

*Final PS&E Submittal*

- 13 sets of prints of checked, signed structure plans
- 1 electronic copy of checked, signed structure plans (.dgn and .par files)
- 1 copy of design calculations
- 1 copy of design check calculations
- 6 copies of edited Structure Special Provisions
- 1 copy of edited Structure Special Provisions on a microcomputer disk
- 3 copy of Memo to Specification Engineer/Estimator
- 2 copies of cost estimate
- 2 copies of original and checked quantity calculations with summary sheets
- 2 copies working day schedules
- 4 copies of Final Hydrology / Hydraulics Report
- 5 copies of Final Foundation Report
- 3 copies of complete Road Plans
- 5 copies Roadway Special Provisions (electronic)
- 1 copy of the consultant Quality Control Checklist

### Task 12 – Building 10 Relocation

The Building 10 Relocation Feasibility Study will analyze alternatives for relocating Quarters 10 and 267 to the two identified preferred sites on YBI. This includes preparation of exhibits, methods of relocation, cost evaluation, utility connection identification, environmental clearance evaluation, new site evaluation, existing site evaluation, historical architect review, preparation

of a house mitigation report, and a final feasibility study report. Based on results of the feasibility study report, input from the historic architect, the development, the SHPO, and other project stakeholders, the future building site will be selected. After site selection, final civil site plans and building architectural plans will be prepared to satisfy local building code permit requirements but building and site will not be finished and ready for occupancy. It is assumed the final tenant improvements will be provided by future owner.

***Deliverables: Relocation Feasibility Study Report, Civil Site Plans, Architectural Plans***

## Appendix D

## Consultant/Caltrans/Authority Budget

The Consultant budget for the YBI Ramps Project is increased by $9,200,000; from $6,735,000 to $15,935,000.

Caltrans budget for services associated with Cooperative Agreements (No. 4-2283 and 4-2137) is $1,465,000.

The Authority Project Management Services and staff cost is increased by $280,000; from $313,021 to $593,021.

The Authority contingency cost is increased by $550,000; from $286,979 to $836,979.

The Authority and TIDA anticipate that approximately $9,543,000 of the Authority, Consultant's and Caltrans' costs under this Agreement will be reimbursed via state and federal funds, including but not limited to federal Highway Bridge Program dollars.

# Appendix E

## Total Budget

The budget for the Project and for TIDA's expected portion of the overall budget is as follows:

| | Project Budget | Federal Highway Bridge Program Funds | TIDA* |
|---|---|---|---|
| Phase 1: PA/ED | | | |
| | $ | $ | $ |
| Project Management Costs | 313,021.21 | 0.00 | 313,021.21 |
| Consultant Contract | 2,500,000.00 | 0.00 | 2,500,000.00 |
| Contingency | 186,978.79 | 0.00 | 186,978.79 |
| Total Phase 1: PA/ED | 3,000,000.00 | 0.00 | 3,000,000.00 |
| Phase 2: Preliminary Engineering | | | |
| Consultant Contract | 4,235,000.00 | 0.00 | 4,235,000.00 |
| Contingency | 100,000.00 | 0.00 | 100,000.00 |
| Total Phase 2: Preliminary Engineering | 4,335,000.00 | 0.00 | 4,335,000.00 |
| Caltrans Cooperative Agreement (No. 4-2283) | 715,000.00 | 0.00 | 715,000.00 |
| Caltrans Cooperative Agreement (No. 4-2137) | 750,000.00 | 663,975.00 | 86,025.00 |
| Total Caltrans Cooperative Agreements | 1,465,000.00 | 663,975.00 | 801,025.00 |
| Phase 2: Design | | | |
| Project Management Costs | 280,000.00 | 247,884.00 | 32,116.00 |
| Consultant Contract | 9,200,000.00 | 8,144,760.00 | 1,055,240.00 |
| Contingency | 550,000.00 | 486,381.00 | 63,619.00 |
| Total Phase 2: Design | 10,030,000.00 | 8,879,025.00 | 1,150,975.00 |
| | $ | $ | $ |
| Total Project Cost | 18,830,000.00 | 9,543,000.00 | 9,287,000.00 |

Note:

* TIDA amount excludes interest costs as described in Section 4 of this Agreement, which are borrowing obligations over and above the project costs.

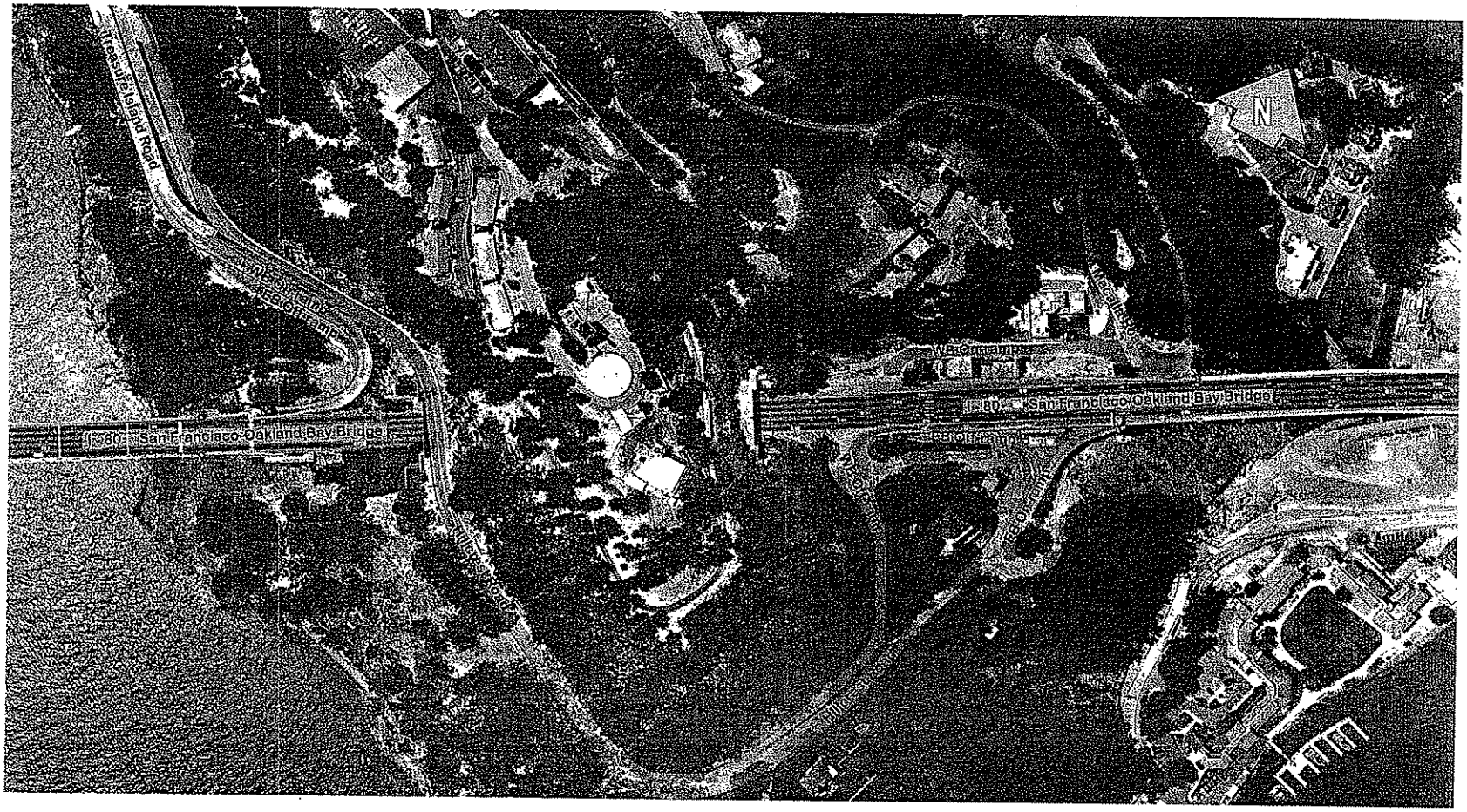



**Figure 1 – Configuration of Existing Ramps on Yerba Buena Island**

# Future YBI Facility (Transition Structures)


## Legend

- Existing Structure — West End
- Existing Structure — Curve
- Existing Structure — Truss
- South Gate Road
- McCalla Road Rehabilitation
- Electrical Duct Bank
- TBS — West Tie-In
- TBS — Viaduct
- TBS — East Tie-In
- TBS — West End Viaduct Retrofit
- TBS — East Bound On-Ramp, Temp
- New Structure — YBI Transition
- New Structure — SAS
- New Structure — East Bound On-Ramp, Final
- New Structure — Bike Path

**Office of the Mayor**
City & County of San Francisco

**Gavin Newsom**

TO: Angela Calvillo, Clerk of the Board of Supervisors

FROM: Mayor Gavin Newsom

RE: Third Amendment to Memorandum of Agreement Between the Treasure Island Development Authority and the San Francisco County Transportation Authority Relating to I-80/Yerba Buena Island Interchange Improvements Project

DATE: June 15, 2010

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Dear Madame Clerk:

Attached for introduction to the Board of Supervisors is the resolution approving a Third Amendment to the Memorandum of Agreement between the Treasure Island Development Authority and the San Francisco County Transportation Authority for project management services and consultant services for the preparation of a Project Report and Environmental Document for the I-80/Yerba Buena Island Interchange Improvements Project to amend the scope of work and increase the not to exceed budget to $18,830,000.

I request that this item be calendared in Budget and Finance Committee on July 28, 2010.

Should you have any questions, please contact Starr Terrell (415) 554-5262.

100813

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