

Agenda Item No. 6.C.

To: Board of Directors  
Meeting of December 18, 2009

From: Ewa Z. Bauer, Deputy District Engineer  
Denis J. Mulligan, District Engineer  
Celia G. Kupersmith, General Manager



Subject: **STATUS REPORT ON ENGINEERING PROJECTS**

### **Recommendation**

The following report is provided for informational purposes and no action is required. *Items that have changed since the last report are in this typeface.*

### **Summary**

Golden Gate Bridge Physical Suicide Deterrent System, RFP No. 2006-B-17. By Resolution Nos. 2005-015 and 2005-031, the Board of Directors approved seeking funding to underwrite the development of environmental studies and preliminary design work for a Physical Suicide Deterrent System on the Golden Gate Bridge (Studies). On March 26, 2006, the Board of Directors approved Resolution No. 2006-027, which approved proceeding with environmental studies and preliminary design work. On June 28, 2006, Metropolitan Transportation Commission (MTC) passed a resolution providing \$1.6 Million for this effort. A Request for Proposal (RFP) to engage consultants to perform this work was advertised on June 29, 2006, and the Board at its September 22, 2006, meeting authorized execution of a Professional Services Agreement with DMJM Harris, Inc. The Notice to Proceed was issued effective October 16, 2006.

The first phase, which is wind tunnel testing, was completed in May 2007 and the results of the wind studies were presented at the May 24, 2007, Building and Operating Committee Meeting. The second phase is preliminary engineering and environmental studies.

The Draft Environmental Impact Report/Environmental Assessment (EIR/EA) was released to the public on July 8, 2008. Public meetings were held on July 22 and July 23 in Marin and San Francisco with the public comment period ending August 25, 2008.

The Board of Directors voted on October 10, 2008, to select Alternative 3 – the NET as the Locally Preferred Alternative (LPA).

The selection of the LPA provided direction for: 1) the preparation of written responses to comments; 2) the negotiation and execution of a Memorandum of Agreement (MOA) to mitigate the adverse effects the LPA has on the historic property; and, 3) the preparation of any additional required studies for the LPA (for example, evaluate the potential for bird collisions). The responses to comments, MOA and additional studies will be incorporated into the Final EIR and Findings of No Significant Impacts (FONSI). District staff and the consultant are working in coordination with Caltrans to complete these items. On February 24, 2009, staff met with the State Historic

Preservation Officer, the Federal Advisory Council on Historic Preservation, Caltrans, and interested parties regarding the MOA. A follow-up meeting was held on March 27, 2009. The MOA has subsequently been fully executed. On September 15, 2009, Caltrans provided review comments on the proposed Final EIR/EA. District staff met with Caltrans on October 19<sup>th</sup> to review the responses and resubmitted the documents with revisions on October 29, 2009. *The District received additional comments from Caltrans on November 19<sup>th</sup> and resubmitted the documents with revisions on December 1, 2009. The District is awaiting Caltrans review.*

This project is included in the Metropolitan Transportation Commission's (MTC) Transportation Improvement Program (TIP) for \$50 million in donations and non-profit funds for design and construction in fiscal years 2011 and 2013 respectively. The TIP ID is MRN050019.

The District has a project website to inform the public regarding the project. The project website is: [www.ggbsuicidebarrier.org](http://www.ggbsuicidebarrier.org). All Project documents, such as the wind report and the draft EIR/EA, are available on the website.

Golden Gate Bridge Seismic Retrofit Phase IIIA, North Anchorage Housing/North Pylon. On March 28, 2008, the Board awarded Contract No. 2006-B-1 in the amount of \$83,320,672 to the low bidder, Shimmick Construction Company, Inc./Obayashi Corporation, a Joint Venture. Notice to Proceed was issued to the Contractor on July 7, 2008. The Contractor has established the field office and is preparing for District's approval of the major initial submittals and work plans. *Currently, lead cleanup activities, installation of access platforms, exterior wall strengthening, utility relocation, and construction of shear walls are underway inside the North Anchorage House. Steel fabrication continues in Washington and falsework construction continues at the precast site located in Napa, CA. The micropile testing activities have been completed. Rockbolt activities have begun.*

On May 23, 2008, the Board authorized the General Manager to award the Professional Services Agreement (PSA) for the Phase III Construction Management and Inspection Support Services, Contract No. 2006-B-2, to HNTB in the amount not to exceed \$6,110,000 upon receiving FHWA/Caltrans approvals of the Agreement. The General Manager awarded the Agreement to HNTB on June 27, 2008.

On May 23, 2008, the Board authorized the General Manager to award a PSA for the Phase IIIA Engineering Support Services, Contract No. 2006-B-3, to HDR Engineering, Inc., in the amount not to exceed \$3,300,000 upon receiving FHWA/Caltrans approvals of the Agreement. The General Manager awarded the Agreement to HDR on June 3, 2008.

On June 27, 2008, the Board authorized execution of a PSA for the Phase IIIA Environmental Compliance Monitoring Services, Contract No. 2006-B-5, with Environmental Science Associates (ESA) in an amount not to exceed \$300,000.00 with a contingency amount of \$30,000.00. The General Manager awarded the Agreement to ESA on August 15, 2008. ESA is monitoring the work for compliance with the project environmental permits.

On May 26, 2009, the General Manager awarded Professional Services Agreement, Contract No. 2006-B-4, in the amount not-to-exceed \$75,000 to Inspection Services, Inc. (ISI). ISI is performing material QA as compliance for the Contract.

On October 23, 2009, the Board authorized execution of an On-call Services Agreement with the California Highway Patrol in an amount not to exceed \$2,247,850, for enforcement of the construction zone speed limit and assistance with traffic diversions for night-time lane closures during construction of the Golden Gate Bridge Seismic Retrofit Phase IIIA, North Anchorage Housing/North Pylon Project.

Golden Gate Bridge Seismic Retrofit Phase IIIB, Design Services. On June 2, 2009, the District issued a Request for Statement of Qualifications and Proposals (RFQ/RFP), No. 2010-B-1, Golden Gate Bridge Design Services, to engineering firms and on June 30, 2009, the Office of the District Secretary received proposals from four engineering teams. On August 14, 2009, the Board authorized the General Manager to execute the contract upon receiving FHWA/Caltrans approval.

Environmental Studies and Preliminary Design for a Moveable Median Barrier on the Golden Gate Bridge, RFP No. 2008-B-5. A Request for Proposal (RFP) to engage consultants to perform preliminary engineering and environmental studies was posted on the District's website on June 6, 2008, and on July 14, 2008, three proposals were received by the District. On September 12, 2008, the Board authorized execution of a Professional Services Agreement (PSA) with AECOM, USA, Inc. (formerly DMJM Harris), subject to the District receiving FHWA and Caltrans approval of the agreement. The District and Consultant have met to discuss maintenance and operational concerns in preparation of beginning the environmental studies. The Consultant has developed conceptual designs regarding how the moveable median barrier will safely transition and terminate (from a traffic operations perspective) on the Waldo Grade and at the south end of the Bridge.

Toll Plaza Pavement and Access Improvements, Contract No. 2009-B-4. Staff prepared the design plans and bid documents to repave the Toll Plaza employee parking lot, undercrossing access road and northbound on- and off-ramps; provide signage to improve pedestrian and vehicle access; to modify the Administration Building access areas and various sidewalks and install a platform lift to comply with ADA regulations; to construct an observation deck at East Parking lot; and to repair spalling concrete and deteriorated conduit supports at the undercrossing. This project was advertised on April 14, 2009, and five bids were opened on May 12, 2009. On May 22, 2009, the Board awarded Contract No. 2009-B-4 in the amount of \$1,403,325 to the low bidder, Granite Rock Company, dba Pavex Construction Division. The Notice to Proceed was issued on June 22, 2009. The Contractor has completed repaving the Employee Parking Lot, repaving the East Parking Lot, and repaving the on- and off-ramps at the East Parking Lot. The Contractor is progressing with the railing, signage, and access work items.

Golden Gate Bridge Informal Science Education Resource. This project will fund improvements to the visitor experience at the Golden Gate Bridge. The principle work is the development of permanent science-oriented outdoor exhibits, exhibits explaining the original bridge construction and information about the Bridge. Work also includes development of a master plan of what is known as the East Visitor Area to ensure that the placement of the exhibits at the Bridge site is professionally guided and to ensure that this phase follows logical steps that could later lead to the realization of a visitor center at the site. On October 23, 2009, the Board authorized the addition of this new project to the FY 09/10 Bridge Division Capital Budget in the amount of \$3,499,777, to be funded with NSF grant funds (\$2,999,777) and with District reserves (\$500,000).

Golden Gate Bridge South Approach and Pier Physical Security Improvements, Contract No. 2008-B-2. Staff is preparing the design plans and bid documents to improve the physical security at the south tower pier and south approach area. This project is scheduled to be advertised in early 2010.

Golden Gate Bridge South Tower Maintenance Scaffolding System. Staff is preparing the design plans and bid documents to provide maintenance scaffolding at the South Tower.

Biennial Bridge Inspection Program. In order to ascertain the structural condition of the Bridge and to comply with FHWA (Federal Highway Administration) regulations, the District conducts a Biennial Bridge Inspection. This inspection data is analyzed and organized to facilitate Bridge maintenance operations and to assist the capital budget development process. Staff prepared the work plan for the Biennial Bridge Inspection, including underwater inspection of the North Pier, South Pier, and Fender.

On November 21, 2008, the District submitted the 2008 Biennial Bridge Inspection Report and the Load Ratings for the Golden Gate Bridge, Bridge No. 27-0053, to Caltrans and FHWA. On March 17, 2009, the District submitted the “National Bridge Inventory – Structure Inventory and Appraisal” reports for the Lincoln Boulevard Overcrossing, Toll Plaza Undercrossing, Alexander Avenue – Bunker Road (Overpass), and Alexander Avenue – East Gate Road (Overpass) to Caltrans and FHWA. Staff is preparing an RFP to select a consultant for the underwater inspection of the piers and fender.

Golden Gate Bridge Main Cable Renovation. On April 13, 2001, the Board accepted staff’s recommendation to revise the Contract documents and to readvertise the project for construction bids. The revisions will include adding provisions and design criteria for work access systems to be proposed by contractors, and revising the bid documents. Staff is preparing a Request for Proposals to engage services of an engineering consultant with expertise in suspension bridge surface cable renovation to provide assistance with updating plans and technical specifications for the construction access and staging, cable cleaning and coating, and opening cable’s interior for inspection.

Seismic Instrumentation. The State of California, Division of Mines and Geology – Strong Motion Instrumentation Program (SMIP) has completed installing and testing the Phase I seismic instrumentation system. Seventy-six seismic sensors and two recording stations were installed as part of this phase.

On April 10, 2001, and September 21, 2004, the Seismic Instrumentation Advisory Panel (Panel) approved the Phase II sensor locations for the South Approach Structures. Twenty-five additional sensors were proposed for the South Approach and were included as part of the Phase II Seismic Retrofit project. On September 24, 2002, the Panel approved the design plans of Phase II Seismic Instrumentation, North Approach Structures. Twenty-four additional sensors for the North Approach were added to the Seismic Instrumentation System. Subsequent panel meetings were held on September 30, 2003, September 21, 2004, and October 25, 2006, to review the progress of construction of the Phase II Seismic Instrumentation and the MEMS system developed by the U.C. Berkeley Citris program. The MEMS has been tested with satisfactory results and was removed by U.C. Berkeley in March 2007.

On October 25, 2006, the Panel recommended installing a wind monitoring system on the Golden Gate Bridge. On April 27, 2007, the Board authorized SMIP to install the wind monitoring system,

including an anemometer and a seismic recorder connected to selected, existing and new seismic sensors on the Suspension Bridge.

On August 29, 2007, the Panel approved the design of the wind monitoring system, and recommended measuring ambient vibration and analyzing the Bridge computer model with data recorded from the 1999 Bolinas and 2000 Napa earthquakes. The wind monitoring system was completed in October 2008.

Earthquake Response Plan. Staff has developed and finalized an Earthquake Response Plan. The Plan recommends establishment of an on-call Bridge emergency repair service and computer analytical capability and a list of on-call contractors for emergency repairs was established. Staff is developing an in-house computer analytical system with assistance from International Civil Engineering Consultants, Inc., (ICEC) for earthquake input data analyses. To date, ICEC has performed conversion of the Suspension Bridge, the South Approach Structures, and the North Approach Viaduct computer models to the ADINA program. In 2002, SMIP installed an independent seismic sensor with a warning light and buzzer in the Sergeant's control room. On March 1, 2007, the Bridge Earthquake Response Pager System successfully recorded and transmitted the Lafayette Earthquake with a 1% g ground acceleration at the Bridge. On October 30, 2007, the Bridge Earthquake Response Pager System successfully recorded and transmitted the Alum Rock Earthquake with a 1% g grounded acceleration of the Bridge. *On December 1, 2009, the Pager System was tested with satisfactory results.*

In 2002, the Ironworkers, the Sergeants, the Engineers, and the Inspectors were given training in performing post-earthquake Bridge inspection in accordance with the Earthquake Response Plan. An updated training was provided on April 12, 2006. An earthquake response drill was carried out on April 19, 2006, to ensure that staff will be familiar with the Earthquake Response Plan. Staff has provided good comments to improve the procedures and inspection forms for the earthquake response inspection.

### **BUS TRANSIT FACILITIES**

San Rafael District Data Center Project, Contract No. 2009-BT-3. Staff prepared the design plans and bid documents to construct a District Data Center within the San Rafael Bus Facilities to house computer and radio servers including an uninterrupted power supply system. This project was advertised on January 13, 2009, and bids were opened on February 10, 2009. On March 27, 2009, the Board authorized award of the Contract to Sonoma County Builders, Inc., in the amount of \$1,352,644.27. The Notice to Proceed was issued effective April 28, 2009. The Contractor has completed excavation and installation of conduit for utilities, all foundation work, structural framing, and roofing. *The Contractor is progressing with the exterior siding, interior framing, HVAC system, and other utilities.*

San Rafael Body Shop Roof Replacement and Solar Panels Installation, Contract No. 2010-BT-1. Staff has prepared design plans and bid documents for replacing roofing and insulation, retrofitting lighting systems and installing a solar power system at the San Rafael Bus Facility Body Shop. This project was advertised on June 16, 2009, and on July 14, 2009, eight (8) bids were received and opened. On July 24, 2009, the Board authorized awarding the contract to the low bidder, Angotti &

Reilly, in the amount of \$493,000. The Notice to proceed was issued effective August 17, 2009. *The Contractor is continuing the roof replacement and has begun the light retrofit. The solar panels are not anticipated until January 2010.*

San Rafael District Administration Building HVAC Improvements, Contract No. 2008-BT-2. Staff, with the assistance of mechanical and electrical design consultants prepared design plans and specifications for the improvements to the existing HVAC system. The contract was advertised for bids on April 18, 2008, and five bids were received and opened on May 6, 2008. On May 23, 2008, the Board authorized awarding the Contract to the low bidder, Best Contracting Services, Inc., in the amount of \$597,500.00. The Notice to Proceed was issued effective June 30, 2008. Contractor has completed all punch list items. Staff is working with Contractor on finalizing this project.

Santa Rosa Bus Facility – Site Remediation. The District removed leaking underground tanks at the site in 1990. As part of the ensuing site investigation of diesel contamination, a soil vapor extraction system was installed and operated over a three-year period. In response to a 1997 request for site closure, the North Coast Regional Water Quality Control Board (NCRWQCB) requested additional groundwater monitoring. In October 1999, staff received a letter from NCRWQCB that contained additional requirements for site closure. Based on the presence of Volatile Organic Compounds (VOCs) in the groundwater, in particular the solvents TCE and TCA, the NCRWQCB, in December 2000, requested additional investigation regarding the presence of VOC pollutants on the site. The District responded that the VOC pollutants did not originate from the District property but migrated onto the site from the neighboring Hewlett-Packard (HP) property, which has had known releases of VOCs on their site.

The NCRWQCB responded that the two property owners needed to resolve this issue. Two rounds of joint sampling were performed in April and October, 2001.

The District completed the site closure actions requested by the NCRWQCB and submitted a final report in February 2002. The NCRWQCB responded in May 2002 with a request for additional monitoring for diesel hydrocarbons and VOC pollutants. The parties did not reach agreement on recommendations for resolving the VOC issue.

HP issued its own report on the joint monitoring in October 2002. The NCRWQCB requested a written response from the District to the HP report. The District responded with a comprehensive Forensic Evaluation Report that explained the occurrence of VOCs on GGB property and met with the NCRWQCB to reach an agreement on remaining concerns. The final report addressed the NCRWQCB's comments and was submitted in December 2003.

The NCRWQCB responded in March 2005, requesting that the District develop a plan for further mitigation of VOCs and diesel hydrocarbons. On November 8, 2005, the District advertised an RFP for a new contract to obtain additional test samples required by the water board. On February 24, 2006, the Board authorized execution of a Professional Services Agreement with PES Environmental, Inc., and the Notice to Proceed was issued to the consultant on March 6, 2006. The consultant obtained test samples from the existing wells and submitted a request for closure to the NCRWQCB. The District met with the NCRWQCB to discuss the closure request and the NCRWQCB declined to approve site closure. An annual sampling event was performed in March

2007; however, the test results were inconclusive by the NCRWQCB. Additional quarterly sampling was performed in June, September, and December 2007 at the site. Another annual sampling event was performed in March 2008, and the test results were again inconclusive by the NCRWQCB. Quarterly sampling was performed throughout 2008 and annual sampling was performed the last week of March 2009.

The NCRWQCB requested that the District prepare a Feasibility Study/Corrective Action Plan (FS/CAP) to evaluate the most effective strategy to achieve cleanup at the site. The District submitted the FS/CAP to the NCRWQCB on July 30, 2009. The report recommended “No Further Action” at the site.

Novato Bus Facility – Site Remediation. The final site remedial investigation report regarding previous fuel leaks at the site was submitted to the San Francisco Regional Water Quality Control Board (SFRWQCB) in May of 1997. The SFRWQCB reviewed and approved the recommended corrective actions identified in the report, which included replacing the existing diesel Underground Storage Tanks (USTs). Two existing 12,000-gallon single-walled underground storage diesel tanks were removed in 1998 and replaced with two new double-walled 15,000 gallon USTs nearby.

In June 1999, the District submitted a report for implementation of the remaining corrective actions, which included quarterly groundwater monitoring, closure of a deep well, installation of additional monitoring wells and a sensitive receptor survey. The groundwater monitoring results indicated that the fuel from the leak was confined to the site; however, it is not diminishing at a rate that would allow site closure.

The fourth quarter 2003 round of monitoring discovered a spike in contaminant levels in the monitoring wells. The District reported the findings to the SFRWQCB in its April 2004 progress report and included recommendations that would lead to site closure. The SFRWQCB approved the recommendations, added a few of its own, and required that the District implement those recommendations. The District implemented two rounds of quarterly groundwater monitoring that were concluded in March 2005. On November 8, 2005, the District advertised an RFP for a new contract to perform additional testing and monitoring as required by the SFRWQCB. On February 24, 2006, the Board authorized execution of a Professional Services Agreement with PES Environmental, Inc. The Notice to Proceed was issued to the consultant on March 6, 2006. The consultant prepared a work plan and submitted the plan to the SFRWQCB for approval. The District received a conditional approval of the work plan from the SFRWQCB and has commenced work at the site. The consultant has performed soil and water sampling throughout the site and is developing remediation plans for the site. *Quarterly groundwater sampling was performed September 10, 2009.*

## **FERRY FACILITIES**

Larkspur Ferry Terminal, Consultant to Provide Berth and Channel Maintenance Dredging Design and Permitting Support Services, RFP No. 2008-FT-3. A Request for Proposal (RFP) to engage consultants to perform this work was advertised on July 27, 2007, and the Board at its September 28, 2007, meeting authorized execution of a Professional Services Agreement with Anchor Environmental CA, L.P. The Notice to Proceed was issued for the first phase of the project, Berth Maintenance Dredging, effective October 3, 2007. The consultant performed a bathymetric survey of

the existing conditions in the berthing basin in October 2007, and the District determined that the conditions did not warrant dredging the berths in 2008. In September 2008, consultant performed another condition survey of the berthing basin. Staff determined that maintenance dredging is required in 2010 and has directed the consultant to resume work on the berth and channel design. Consultant is sampling and testing sediment and preparing construction documents.

Conceptual Designs, Environmental Studies and Engineering Services for Modifications and Improvements to the Larkspur, San Francisco, and Sausalito Ferry Terminal Facilities, RFP No. 2010-FT-3. A Request for Proposal (RFP) to engage consultants to perform this work was advertised on May 19, 2009 and on July 7, 2009, six (6) proposals were received. The Board at its September 25, 2009, meeting authorized execution of a Professional Services Agreement with Moffatt & Nichol. The Notice to Proceed was issued effective November 2, 2009. *The Consultant is performing site surveys.*

Larkspur Ferry Terminal Accessible Restrooms and Ramps, Contract No. 2010-ft-5. Staff prepared design plans and bid documents to construct two new fully accessible restrooms, replace two existing concrete ramps, and install automatic double sliding doors and powered swinging doors in the waiting area of the Larkspur Ferry Terminal. The contract was advertised for bids on October 6, 2009. Nine (9) bids were received, opened, and publicly read on November 3, 2009. *See separate agenda item.*

Corte Madera Ecological Reserve (CMER) Tidal Wetlands Restoration Project. As a condition of a 1988 COE (U.S. Army Corps of Engineers) permit for maintenance dredging of the Larkspur Ferry Terminal, the District was required to perform a study to assess the potential impact of ferry operations on erosion of the shoreline at the CMER. The study also investigated creating replacement habitat for a native bird species, the Clapper Rail, due to erosion of their existing habitat. The study was inconclusive regarding the impact of ferry operations on erosion of the shoreline. In consultation with the COE and USFWS (U.S. Fish & Wildlife Service), the District agreed to create four acres of tidal marsh habitat on the District's 72-acre parcel adjacent to CMER, as mitigation for the erosion impacts. A conceptual design report and a draft environmental IS (Initial Study) for the marsh restoration project, which proposed the restoration of three and a half acres of tidal wetlands, two acres of seasonal wetlands, and the relocation of a public access easement that exists on the levee surrounding the parcel, were prepared in 1999. Preparation of Final Plans and Specifications and acquisition of permits from the Town of Corte Madera, the COE, USFWS and BCDC resumed in September 2003 with the award of a Professional Services Agreement to Philip Williams & Associates. The COE met with District staff in March 2004 and stated they wanted to re-evaluate the proposed mitigation plan as well as perform a new JD (Jurisdictional Determination) of the entire 72-acre parcel. The consultant has performed the new JD. The District and COE will meet to further discuss the project.

<b>Contract Time Expended as of December 5, 2009</b>					
<b>Project</b>	<b>Contract</b>	<b>Contract Working Days</b>	<b>Elapsed Contract Days</b>	<b>Authorized Contract Time Extension Days</b>	<b>Contract Time Expended</b>
GGB Seismic Retrofit Phase IIIA North Anch. Housing/North Pylon (SOJV) NTP 7/07/08	2006-B-1	1,100	517	0	47.0%
San Rafael District Admin. Bldg. HVAC (Best Contracting) NOC 5/6/09	2008-BT-2	150	216	0	144.0%
CLOSEOUT STILL PENDING					
San Rafael District Data Center (Sonoma County Builders) NTP 4/28/09	2009-BT-3	140	153	10	102.0%
Toll Plaza Pavement (Granite Rock dba Pavex) NTP 6/22/09	2009-B-4	130	115	0	88.5%
San Rafael Body Shop (Angotti & Reilly) NTP 8/17/09	2010-BT-1	110	76	0	69.1%

**Fiscal Impact**

There is no fiscal impact relative to this status report.

EZB/DJM/CGK/crh