Agenda Item No. 6.C.

To: Board of Directors
Meeting of April 27, 2007

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.

Summary

Phase II: Golden Gate Bridge Seismic Retrofit of South Approach Structures, Contract No. 99-B-5. This contract includes structural retrofit of the South Approach Viaduct (SAV), the South Anchorage Housing, Pylons S1 and S2, and the Fort Point Arch (FPA); relocation of various utilities; and retrofit of utility conduits along the south approach structures.

On May 11, 2001, the Board awarded the contract to the low bidder, Shimmick Construction Company, Inc./Obayashi Corporation, a Joint Venture, in the amount of $122,292,503. The Notice to Proceed was issued to the Contractor on June 4, 2001. Weekly construction meetings between the District and the Contractor are being held every Friday.

The retrofit work at the South Anchorage Housing has been completed. Utility work, backfill, concrete finish and clean-up work remain.

The upper scaffold platform under the FPA Deck Truss has been removed. Touch-up painting operations are proceeding throughout the FPA Deck Truss. The retrofit work in the FPA has been completed. The CCO No. 91 work at the Lower Arch is continuing. Scaffolding for CCO No. 91 work near Pylon S1 and Pylon S2 is in place and clean and paint work is progressing.

The SAV new Tower 1, Tower 2, Tower 3, Bent S9, Bent S10, the Span 6/Pylon S2 interface and the San Francisco Abutment bearings replacement have been completed. Structural steel repairs and painting at the SAV, added to the contract by contract change orders, are continuing.

The steel plating installation at Pylon S1 and Pylon S2 and the cleaning and coating the plating for corrosion protection have been completed. Additional corrosion protection on the inside plating added by contact change order is nearly complete. Cover concrete installation at Pylon S1 and Pylon S2 is complete except for minor fill in sections. Concrete finish work is progressing. Removal of access rigging inside the pylon legs is continuing. Utility work and cleanup work inside the pylon legs is progressing.

Shop fabrication of structural steel members at XKT on Mare Island has been completed. Fabrication of miscellaneous steel members for contract change order work continues.

All CIDH piling and tie-down work has been completed.

Night work on all the isolation deck joints at Pylons S1 and S2 above the Fort Point Arch, at the SAV/Pylon S2 and San Francisco Abutment has been completed. Punch list work remains.

Electrical/utility relocation work is continuing throughout the project.

Meetings involving the District, the designers and the contractor are being held to facilitate efficient exchange of information to mutually resolve arising issues and to maintain a cooperative relationship for the benefit of the project. Management level partnering meetings are held every three months.

On June 25, 2004, the Board increased the contingency by $6,765,000 to finance two Contract Change Orders (CCOs) covering repair and painting of steel members of the Fort Point Arch. On August 27, 2004, the Board increased the contingency by $6,250,000 to finance five CCOs covering repair and painting of steel elements in the South Approach Viaduct. On May 27, 2005, the Board increased the contingency by $3,600,000 to finance one CCO covering repair and painting of steel members of the Fort Point Arch Lower Truss. On May 26, 2006, the Board increased the contingency by $4,686,500 to finance two CCOs covering repair and painting of steel members in the South Approach Viaduct and Fort Point Arch and two CCOs covering repair of concrete and painting of steel plating at Pylons S1 and S2.These actions increased the authorized contract contingency to $33,601,500 (100% federal grant funds). The total of authorized CCOs is approximately $31,933,000.

On May 26, 2006, the Board authorized a $2,205,000 increase in the Phase II project budget (to be funded with the federal grant funds) to finance the extension of construction administration by District and consultant's staff related to the authorized additional contract change order work and extension of contract time.

Golden Gate Bridge Seismic Retrofit Phase IIIA, North Anchorage Housing/North Pylon, Contract No. 2006-B-1. On January 26, 2007, the District received FHWA/Caltrans Authorization to proceed with advertising Contract No. 2006-B-1 for construction bids. The contract was advertised January 31, 2007. The scheduled bid opening date is May 31, 2007.

Golden Gate Bridge North Approach and Side Span Physical Security Improvements, Contract No. 2006-B-10. Staff prepared the design plans and bid documents to improve the physical security at north approach and side span and vicinity. This project was advertised for bids on December 13, 2005, and bids were opened on February 14, 2006. On February 24, 2006, the Board awarded the contract to the low bidder Ghilotti Bros., Inc., in the amount of $2,146,213. The Notice to Proceed was issued to the Contractor on March 20, 2006. The Contractor has completed the installation and testing of all work and devices. District forces are completing the interface between the new devices and the District's central control. Punchlist items remain.

Golden Gate Bridge South Approach and Pier Physical Security Improvements. Staff is preparing the design plans and bid documents to improve the physical security at south approach and pier and vicinity. This project is scheduled to be advertised in September 2007.

Golden Gate Bridge North Approach Viaduct Suspended Scaffolding System, Contract No. 2007-B-4. Staff prepared the design plans and bid documents to purchase suspended scaffolding materials for installation by Bridge forces to be used for maintenance and painting of North Approach Viaduct superstructure. The contract was advertised for bids on October 10, 2006, and one bid was received and opened November 7, 2006. On November 17, 2006, the Board awarded the contract to the sole bidder, Safway Services, Inc., in the amount of $1,459,609.50. The Notice to Proceed was issued to the Contractor effective December 11, 2006. The Contractor is continuing with submittals and with shop fabrication. Material has arrived on site.

Golden Gate Bridge Physical Suicide Deterrent System. 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, the 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 consultant is progressing with the work, and wind tunnel testing is almost complete.

Biennial Bridge Inspection Program. In order to ascertain the structural condition of the Bridge and to comply with FHWA regulations, the District started the Biennial Bridge Inspection Program on May 21, 2001. Inspection of the suspension spans, main towers, North Anchorage Housing, and North Approach Viaduct was completed. This inspection data was analyzed and organized to facilitate Bridge maintenance operations and to assist the budget development process. The inspection report was submitted to FHWA and Caltrans on April 25, 2002. The next Biennial Bridge Inspection commenced in 2003. This work inspected the South Approach Structures, since this area was not part of the 2001 Inspection, and this inspection revisited those bridge components identified as level “red” in the 2001 Inspection. Inspection of Spans 4, 5 and 6 of the South Approach Viaduct was completed in April 2003. Inspection of the Suspension Bridge, North Anchorage Housing and North Approach Viaduct was completed in May 2004. The summary of condition ratings, appraisal ratings and load ratings of the Bridge was submitted to Caltrans and FHWA on April 11, 2005. The final inspection report of 2003-2004 Biennial Bridge Inspection was submitted to Caltrans and FHWA on October 6, 2005. Staff has prepared the work plan for next Biennial Bridge Inspection, including underwater inspection of the North and South Piers and Fender. The inspection of the Suspension Bridge started on March 19, 2007.

Golden Gate Bridge Main Cable Renovation. On April 13, 2001, the Board accepted staff's recommendation to revise the contract documents and to re-advertise the project for construction bids. The revisions will include adding provisions for alternate work access systems to be proposed by contractors. Plans are being revised and specifications are being finalized.

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 have been installed.

On April 10, 2001, the Seismic Instrumentation Advisory Panel approved the Phase II sensor locations for the South Approach Structures. Twenty-two additional sensors were proposed for the South Approach and were included as part of the Phase II Seismic Retrofit project. Three additional sensors at the downhole location were recommended by the panel. 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 being developed by the U.C. Berkeley Citris program. The next panel meeting is scheduled to be held on August 29, 2007. The MEMS has been tested with satisfactory results and was removed by U.C. Berkeley in March 2007.

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, Inc. (ICEC) for earthquake input data analyses. To date, ICEC has performed conversion of the Suspension Bridge and the South Approach Structures computer models to the ADINA program. The conversion of the North Viaduct model is ongoing. 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 March 6, 2007, 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.

Merchant Road Improvements and Realignment. Staff prepared the design plans and bid documents, in cooperation with the Presidio Trust, to improve and realign Merchant Road. This project was advertised for construction bids on May 16, 2006, and bids were opened on June 13, 2006. The Board awarded the contract to the low bidder, Granite Rock Company, doing business as Pavex Construction Division, on June 23, 2006. On July 14, 2006, District signed a cost-sharing agreement

with Presidio Trust and issued the contract to the Contractor for execution. The Notice to Proceed was issued August 4, 2006, to Pavex. The Contractor has completed the new roadway and parking lot work, including the sidewalk, curb and gutter and paving. The drainage work is complete. The existing Merchant Road was closed the weekend of January 5, 2007, and the new paving completed. Signage, striping, electrical and planting work are complete. Punch list items remain.

BUS TRANSIT FACILITIES

Toll Plaza Transfer Point Improvements, Contract No. 2006-B-6. This project improved the four bus stops and two bus shelters at the Toll Plaza, the east parking lot and access to the IT trailers, and was advertised for construction on June 7, 2005. The contract was awarded to Maggiora & Ghilotti, Inc., on July 22 and the Notice to Proceed was issued effective August 9, 2005. The contractor completed all contract work on December 27, 2006.

Santa Rosa Bus Facility Diesel Tank Replacement, Contract No. 2007-BT-4. Staff is preparing the preliminary design plans for replacing the underground diesel tanks with aboveground diesel tanks. The preliminary design was submitted to the Santa Rosa Fire Department for review, and the Fire Marshal has approved the design scheme of above-ground fuel tanks. Staff has prepared the final plans and bid documents. This project was advertised for bids on April 17, 2007.

San Rafael District Administration Building HVAC Improvements. Staff is working with a mechanical consultant to prepare for the improvements to the existing HVAC system. This project is scheduled to advertise in September 2007.

San Rafael District Data Center Project. Staff is preparing the design plans and bid documents to construct a District Data Center within the San Rafael Bus Facilities to house the servers and uninterrupted power supply system for the District. This project is scheduled to be advertised in late 2007.

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 (NCRQWCB) 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. The District and HP agreed to conduct joint groundwater sampling for presence of VOCs and provide recommendations for resolving the issue. Two rounds of joint sampling were performed in April and October, 2001.

The District completed the site closure actions requested by the Water Board and submitted a final report in February 2002. The Water Board 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 Board'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. The District has met with the NCRWQCB to clarify its request. The NCRWQCB is reviewing information submitted by the District and will clarify its request regarding additional testing for VOC pollutants on the property. The NCRWQCB is concerned that historic use of the site as a small aviation airport could have contributed to VOCs found in groundwater on the District site. The District's position is that there is no evidence to support that concern. On November 8, 2005, the District advertised a Request for Proposal (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. 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 is not approving site closure. Another sampling event was performed in March 2007. The District is awaiting the test results.

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 scope also included treatment of residual subsurface diesel pollutants by injecting oxygen-releasing compounds into the soil and groundwater. The District has been implementing these corrective actions periodically since 2000.

The last 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 a Request for Proposal (RFP) for a new contract to

perform additional testing and monitoring as required by the Water Board. 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.

FERRY FACILITIES

Larkspur Ferry Terminal Channel Maintenance Dredging, Contract No. 2007-FT-1. The navigational approach channel and turning basin of the Larkspur Ferry Terminal require maintenance dredging every three to four years to return the channel and turning basin to their specified operational depth and width. The District prepared a Request for Proposal (RFP) soliciting firms to provide dredging design and permitting support services for the project. On August 26, 2005, the Board awarded the professional services contract to Anchor Environmental CA, L.P., for the design and permitting support services. The District issued the Notice to Proceed to Anchor Environmental on September 1, 2005. The consultant completed the technical design and the District advertised a construction project on March 21, 2006. Bids were opened on April 18, 2006, and on May 12, 2006, the Board awarded the contract to Dutra Dredging Company. The dredge plan was approved by the U.S. Army Corps of Engineers and dredging began on June 16, 2006. On October 27, 2006, the Board authorized a Contract Change Order (CCO) in the amount of $411,032.90, for dredging an additional 45,418 cubic yards of sediment material. Dredging and punch list items have been completed. The project is being closed.

Larkspur Ferry Terminal Fuel Piping Replacement, Contract No. 2007-FT-5. Staff prepared the design plans and bid documents to replace the existing deteriorated steel diesel fuel piping and control valves with stainless steel piping and valves, and to add an access walkway and platform for maintenance and inspection. The contract was advertised for bids on November 21, 2006, and three bids were received and opened on January 16, 2007. On January 26, 2007, the Board awarded the contract to the low bidder, Stephens Construction, Inc. The Notice to Proceed was issued effective February 26, 2007. Contractor is making field surveys, and submitting work plans and working drawings for approval.

Larkspur Ferry Terminal Administration Building Remodel, Contract No. 2007-FT-3. Staff is working with a design consultant to prepare design plans and bid documents to improve the HVAC and office layout of the administration building. Staff has reviewed the design plans and specifications and provided comments to consultant to finalize the design plans and specifications. This project will be scheduled for advertisement when the consultant has submitted the final design plans and specifications. A BCDC permit is not required for this project.

Larkspur Ferry Terminal Storage and Inspection Station, Contract No. 2007-FT-13. Staff has prepared the design plans and bid documents to construct the storage and inspection building, equipment and utilities. This project was advertised for bids on April 17, 2007. A BCDC permit is being applied for this project.

Larkspur Ferry Terminal Parking Lot Improvements. Staff is preparing the design plans and bid documents to construct the parking lot improvements to increase the passenger parking spaces, to comply with ADA regulations and to improve pedestrian and vehicular traffic safety.

Corte Madera Ecological Reserve (CMER) Tidal Wetlands Restoration Project. As a condition of a 1988 U.S. Army Corps of Engineers (COE) 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 U.S. Fish & Wildlife Service (USFWS), 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 Initial Study (IS) 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 jurisdictional determination (JD) of the entire 72-acre parcel. The consultant has performed the new JD. The District and COE will meet to further discuss the project.

Contract Time Expended as of April 8, 2007					
Project	**Contract**	**Contract Working Days**	**Elapsed Contract Days**	**Authorized Contract Time Extension Days**	**Contract Time Expended**
GGB Seismic Retrofit of South Approach (Phase II) (SOJV)	99-B-5	1,300 (calendar days)	2,134	790 (NOTE 1)	102.11%
GGB North Approach and Side Span Physical Security (Ghilotti) *Notice of Completion Pending-Stopped Counting Days 2/6/07*	2006-B-10	150	323	0	215.33%
Larkspur Ferry Terminal Channel Maintenance Dredging (Dutra) *Notice of Completion 3/5/07* *Project Closure Pending*	2007-FT-1	157	193	0	122.93%
Merchant Road Realignment & Improvements (Granite Rock Company dba Pavex Construction Division) *NTP 8/4/06* *Notice of Completion Pending-Stopped Counting Days 3/16/07*	2007-B-2	80	124	17	127.84%
Larkspur Ferry Terminal Fuel Pipeline Replacement *NTP 2/26/07*	2007-FT-5	180	41	0	22.78%

NOTE 1 – 787 days added to the contract time for the authorized extra work of repairing and painting at the South Approach Viaduct and the Fort Point Arch.

Fiscal Impact

There is no fiscal impact relative to this status report.

DJM/dh