



Agenda Item No. (4)

To: Building and Operating Committee/Committee of the Whole  
Meeting of March 24, 2022

From: John R. Eberle, Deputy District Engineer  
Ewa Z. Bauer-Furbush, District Engineer  
Denis J. Mulligan, General Manager

Subject: **APPROVE ACTIONS RELATIVE TO THE GOLDEN GATE BRIDGE  
PHYSICAL SUICIDE DETERRENT SYSTEM PROJECT**

### **Recommendation**

The Building and Operating Committee recommends that the Board of Directors approve the following actions relative to *Golden Gate Bridge Physical Suicide Deterrent System Project* (Project #1526):

1. Authorize execution of the Sixth Amendment to Professional Services Agreement (PSA) No. 2018-B-075, *Golden Gate Bridge Physical Suicide Deterrent Net System Fabrication Shop Inspection Services*, with David Engineering, LLC., Chicago, IL, in an amount not to exceed \$134,000 for continuation of the suicide deterrent net system fabrication inspection services;
2. Authorize execution of PSA No. 2021-B-073, *Golden Gate Bridge Physical Suicide Deterrent System, Maintenance Traveler Fabrication Shop Inspection Services*, with Smith Emery Laboratories, San Francisco, CA, in an amount not to exceed \$2,600,000, subject to the Golden Gate Bridge, Highway and Transportation District (District) receiving the California Department of Transportation's approval of the PSA prior to its execution;
3. Establish a 10% contingency for PSA No. 2021-B-073 in the amount of \$260,000; and
4. Authorize an increase in the amount of \$2,290,000 in the FY 2021/22 Bridge Division Capital Budget for the Golden Gate Bridge Physical Suicide Deterrent System Project (Project #1526), to be funded from District reserves, for a revised total Project #1526 budget of \$206,632,868.

This matter will be presented to the Finance-Auditing Committee at its March 24, 2022 meeting for concurrence, and to the Board of Directors at its March 25, 2022 meeting for appropriate action.

### **Summary**

At its December 16, 2016 meeting, the Board of Directors, by Resolution No. 2016-087, authorized the award of construction Contract No. 2016-B-01, *Golden Gate Bridge Physical Suicide*

*Deterrent System and Wind Retrofit Projects*, to Shimmick Construction Company, Inc./Danny's Construction Company LLC, a Joint Venture (Contractor).

Contract No. 2016-B-01 includes the *Golden Gate Bridge Physical Suicide Deterrent System Project* (Project #1526), and the *Suspension Bridge Wind Retrofit* (Project #1528). Project #1526 involves construction of a horizontal stainless steel net supported by cantilevered steel brackets along the west and east sides of four Golden Gate Bridge structures: the South Approach Viaduct, the Fort Point Arch, the Suspension Bridge, and the North Approach Viaduct; and construction of a tall vertical railing at the North Anchorage Housing. The net and cantilevered steel brackets will be located approximately twenty feet below the sidewalk and extend out about twenty feet. Because the installation of the Net System on the Suspension Bridge will block operations of the existing Suspension Bridge maintenance travelers, the Project includes replacement of these travelers with new travelers that are configured to avoid interference with the Net System. Project #1528 involves the construction of the wind retrofit along the west side of the Suspension Bridge main span.

The *Golden Gate Bridge Physical Suicide Deterrent System Project* (Project #1526) is mostly funded with monies from the Federal Highway Administration (FHWA). Accordingly, the Golden Gate Bridge, Highway and Transportation District (District) follows the rules and procedures set forth in the California Department of Transportation (Caltrans) Local Assistance Procedures Manual (LAPM) for federally assisted projects. In conformance with the LAPM, the District has developed a Construction Contract Administration Plan for the construction of the Project. According to the Plan, the District is responsible for administration and management of Contract No. 2016-B-01. This work is performed by the Engineering Department staff with the assistance of consultants with expertise in various aspects of construction administration and engineering.

Contract No. 2016-B-01 specifies a construction time of 47 months and a contract completion date of January 12, 2021. As has been previously reported to the Committee, the Contractor has not progressed the work as required by the contract and has informed the District that it will not complete the installation of the physical suicide deterrent system until November 2023 and will not complete the remaining work until December 2025. The District is asserting that the Contractor is responsible for the delay to the time of completion, but the Contractor is disputing this assertion.

As a result of the delay in construction completion of Project #1526, Engineering staff and consultant support services costs will increase. As has been previously reported to the Committee, the additional time of construction will require additional contract administration and construction engineering efforts of Engineering staff and consultants, as well as additional California Highway Patrol traffic control support services and National Park Service permit fees.

Of immediate concern is the budget for the Suicide Deterrent Net System Fabrication Shop Inspection services and the budget for the Maintenance Traveler System Fabrication Shop Inspection services.

#### Suicide Deterrent Net System Fabrication Shop Inspection Services

On August 24, 2018, by Resolution No. 2018-059, the Board of Directors authorized an award of PSA No. 2018-B-075, *Golden Gate Bridge Physical Suicide Deterrent Net System Fabrication Shop Inspection Services*, to David Engineering LLC., in the amount of \$400,000 and authorized a contingency for the PSA in the amount of \$40,000.

The scope of the services consists, in general, of:

- reviewing the construction plans and specifications;
- reviewing the net fabricator's quality control plans;
- reviewing the net fabricator's shop drawings;
- performing quality assurance inspections of and writing reports related to the net system fabrication; and,
- documenting the shipment of material from the fabrication shop to the construction site.

The original PSA price was established based on an estimated 24-month fabrication period. However, due to the Contractor's delays in performing field verifications and development of net system fabrication drawings, the fabrication time had to be extended. In early 2020, staff determined that the fabrication would not be completed within the original estimated fabrication period. Since then, additional factors, such as relocation of the fabrication operations to a larger facility and slower production due to the COVID-19 pandemic, further extended the fabrication time. Consequently, to-date, five amendments to PSA No. 2018-B-075 have been executed as presented in Table 3 below, which extended the time of services period to June 2022, and increased the cost of services by \$217,199.

The net fabricator has completed fabricating approximately 296,000 square feet (77%) of the 385,000 square feet of the total net quantity. Based upon the amount of remaining net fabrication and the current fabrication production rates, Engineering staff has estimated that the fabrication should be completed in March 2023. The current PSA has enough funds to allow quality assurance inspections to continue through April 2022. In order to continue quality assurance inspections of the remaining suicide deterrent net system fabrication through March 2023, the Sixth Amendment to the PSA with David Engineering is necessary.

Engineering staff requested, and David Engineering has provided, a cost proposal in the amount of \$134,000 to continue performing the requested shop quality assurance inspection services through March 2023. Engineering staff has reviewed the proposed cost and found it to be reasonable in terms of David Engineering's budgeted labor hours to perform the additional scope of services requested by the District and to be consistent with David Engineering's audited labor and overhead billing rates.

Staff recommends that the Building and Operating Committee recommend that the Board of Directors authorize the execution of the Sixth Amendment to PSA No. 2018-B-075 with David Engineering, in a not to exceed amount of \$134,000, to perform the additional quality assurance inspection services at the suicide deterrent net system fabrication facility as described above. The District's Disadvantaged Business Enterprise (DBE) Program Administrator has verified that the work under the Sixth Amendment includes 100% DBE participation since David Engineering is a DBE certified company. David Engineering will be compensated for actual time expended and expenses incurred, plus a fixed fee, for the not to exceed authorized amount.

As noted above, it is estimated that the net fabrication should be complete by March 2023. Engineering staff will monitor the progress of the fabrication and will make an assessment at a later date whether this goal can be accomplished without further extension of time and increase in the PSA cost.

Maintenance Traveler System Fabrication Shop Inspection Services

On July 26, 2019, the Board, by Resolution No. 2019-048, approved the award of PSA No. 2019-B-007, *Golden Gate Bridge Physical Suicide Deterrent System and Wind Retrofit Maintenance Traveler System Fabrication Shop Inspection Services*, to Bureau Veritas North America, Inc., Lisle, IL, in an amount not to exceed \$640,000, and also authorized a contingency in the amount of \$64,000 for a total budget of \$704,000, to perform shop inspection services in Alabama and Georgia, which were the original locations of the Contractor's traveler fabrication shops. The PSA was executed on July 29, 2019.

In late summer 2020, the Contractor informed the District that they would no longer fabricate the maintenance travelers in Alabama and Georgia and would instead contract with a fabricator in Oregon and Washington. Staff discussed this change with Bureau Veritas. The consultant stated that they did not have the resources available to perform the shop inspections at the fabrication facilities in Oregon and Washington, and they agreed that the PSA be rescinded.

To bring a new inspection consultant on board, on December 17, 2021, the District issued a Request for Statement of Qualifications and Proposal, RFQ/RFP No. 2021-B-073, *Golden Gate Bridge Physical Suicide Deterrent System, Maintenance Traveler System Fabrication Shop Inspection Services*. The scope of these inspection services consists, in general, of

- performing Quality Assurance Inspections at the contractor's maintenance traveler steel fabrication shops located in Oregon and Washington;
- performing random witnessing of the fabricator's Quality Control testing of the maintenance traveler fabrication;
- reviewing and providing comments and recommendations on the construction contractor's certified materials test reports and certificates of compliance for materials;
- preparing and maintaining tracking logs that record the materials used in fabrication, and testing performed for each fabricated component;
- preparing and submitting daily inspection reports, weekly fabrication progress reports, monthly material on hand reports, and test reports;
- attending fabrication shop meetings with the District and contractor;
- providing recommendations on approaches to resolution of materials non-conformance reports or failed test reports; and,
- informing the District about shop fabrication operations.

The District advertised the RFQ/RFP on its website and sent notices to 15 materials testing and fabrication shop inspection consulting firms. By the due date of January 21, 2022, the Office of the District Secretary received five Statements of Qualifications and Proposal (SOQ&P) from:

- 1) Atlas Technical Consultants, Portland, OR
- 2) David Engineering, LLC, Torrance, CA
- 3) Fickett Structural Solutions, Middleton, WI
- 4) Inspection Services, Inc., Berkeley, CA
- 5) Smith Emery Laboratories, San Francisco, CA

Representatives from the Engineering Department, the District's DBE Program Administrator, and District's Attorney reviewed the SOQ&Ps and determined that all Proposers were responsive to the solicitation requirements.

The District's selection committee, consisting of one Supervising Civil Engineer, one Senior Civil Engineer, and one Senior Steel Inspector, reviewed the SOQ&Ps and evaluated them based upon the criteria included in the RFQ/RFP, including: (1) the qualifications and experience of the firms and the firm's personnel relevant to the scope of services to be provided under a contract resulting from this RFQ/RFP; (2) demonstrated capability and successful track record of the firm's personnel on similar or related projects; and, (3) the firm's understanding and methodology of providing services indicated in the RFQ/RFP for the project construction. The selection committee ranked the five proposals and, in accordance with the RFQ/RFP provisions, interviewed the top three proposal teams and evaluated them based upon the RFQ/RFP criteria. Upon completion of the interviews, the selection committee determined that Smith Emery Laboratories is the highest ranked proposer and has the best qualifications and experience necessary to perform the requested services.

In concurrence with the procedures set forth in the RFQ/RFP, staff opened the cost proposal submitted by the top ranked firm, Smith Emery Laboratories.

As noted above, the District had previously executed a Professional Services Agreement with Bureau Veritas North America, Inc., in a not-to exceed amount of \$640,000, to perform maintenance traveler shop inspection services in Alabama and Georgia. The previous cost proposal was based upon part-time steel fabrication shop inspection services at two locations and part-time galvanization inspections at one location. After further evaluation of the traveler fabrication work and after observing the level of effort necessary to perform the steel fabrication shop inspections during the structural steel shop fabrication work, staff determined that full-time inspections are necessary. Staff also notes that the previous inspection services included Alabama and Georgia pay rates that are lower than the pay rates in Washington and Oregon, and that those rates are now over two and a half years old. Taking this into consideration, staff and Smith Emery negotiated a not-to-exceed \$2,600,000 price for full-time inspections at two steel fabrication facilities for the 18-month fabrication duration and half-time inspections at the galvanization facility for the 18-month duration. Staff has determined that this not-to-exceed price is fair and reasonable based on the level of services required, and historic scope of work and cost data provided by consultants for steel fabrication shop inspection services with consideration for inflation adjustments. The consultant will be compensated for actual time expended and expenses incurred, plus a fixed fee not-to-exceed the authorized amount.

In accordance with requirements of Caltrans, a DBE contract participation goal of eighteen percent (18%) was established for this PSA. Proposers were advised to take all necessary and reasonable steps to ensure that DBE firms were given the opportunity to participate in the performance of the contract. The District's DBE Program Administrator has determined that Smith Emery has complied with the DBE requirements applicable to the PSA. At this time, 18% DBE participation is anticipated during the performance of these services.

In accordance with the FHWA and Caltrans' requirements for Federal Aid fund participation, prior to execution of a PSA financed by federal funds, such PSA must be approved by Caltrans. Caltrans' approval of this PSA is contingent upon audit or review of the consultant's proposal and accounting system by the Caltrans Audits and Investigations Division to verify that the consultant's accounting systems, rates, knowledge of FHWA's cost eligibility, documentation

requirements, and proposed contract language are satisfactory and, in case of any deficiencies, to correct these deficiencies.

In addition to the first recommendation described above with regard to the Sixth Amendment to PSA No. 2018-B-075, *Golden Gate Bridge Physical Suicide Deterrent Net System Fabrication Shop Inspection Services*, with David Engineering, LLC., in an amount not to exceed \$134,000, and in order to fund the Maintenance Traveler System Fabrication Shop Quality Assurance inspection services, Engineering staff also recommends that the Building and Operating Committee recommend that the Board of Directors take the following actions:

- authorize execution of PSA No. 2021-B-073, *Golden Gate Bridge Physical Suicide Deterrent System, Maintenance Traveler Fabrication Shop Inspection Services*, with Smith Emery Laboratories, San Francisco, CA, in an amount not-to-exceed \$2,600,000 and with a 10% contingency; and,
- authorize an increase in the amount of \$2,290,000 in the FY 2021/22 Bridge Division Capital Budget for Project #1526

as presented in this staff report.

Engineering staff will continue monitoring the progress of the construction work and will make an assessment at a later date of any additional budget amounts necessary to finance additional contract administration and construction engineering efforts of Engineering staff and consultants, as well as additional California Highway Patrol traffic control support services and National Park Service permit fees through the construction completion. The District is also continuing to work with its funding partners to secure additional funds for Project #1526 to fund these costs and services. Staff will submit recommendations for additional budget increases determined to be necessary at future Committee meetings.

### **Fiscal Impact**

The *Golden Gate Bridge Physical Suicide Deterrent System Project* (Project #1526) is included in the FY 2021/2022 Bridge Division Capital Budget at a total cost of \$204,342,868.

An increase of \$2,290,000 to the Project #1526 budget, as shown in Table 1 below, is required to finance the \$134,000 cost of the Sixth Amendment to PSA No. 2018-B-075, *Golden Gate Bridge Physical Suicide Deterrent Net System Fabrication Shop Inspection Services*; the \$2,600,000 cost of PSA No. 2021-B-073, *Golden Gate Bridge Physical Suicide Deterrent System, Maintenance Traveler Fabrication Shop Inspection Services*, and this PSA's \$260,000 contingency, which costs are offset by the previously approved \$704,000 budget of PSA 2019-B-007.

The proposed \$2,290,000 increase in the FY 2021/22 Bridge Division Capital Budget for Project #1526, funded with District reserves, would increase the total amount assigned to the Construction Administration and Engineering Budget Sub-Element to \$47,418,957, and the total Project budget to \$206,632,868.

**TABLE 1: PROJECT #1526 BUDGET**  
**GGB Physical Suicide Deterrent System Construction**

BUDGET ELEMENT		AMOUNT	PROPOSED ADJUSTMENT	ADJUSTED AMOUNT
<b>Construction Contract:</b>		<b>\$132,563,830</b>	<b>0</b>	<b>\$132,563,830</b>
<b>Construction Contingency:</b>		<b>\$22,405,213</b>	<b>0</b>	<b>\$22,405,213</b>
<b>Supplemental Funds:</b>		<b>\$3,994,868</b>	<b>0</b>	<b>\$3,994,868</b>
<b>Public Outreach:</b>		<b>\$250,000</b>	<b>0</b>	<b>\$250,000</b>
<b>Construction Administration &amp; Engineering:</b>		<b>\$45,128,957</b>	<b>\$2,290,000</b>	<b>\$47,418,957</b>
	<b>CONSTR. ADMIN. &amp; ENGINEERING BUDGET SUB-ELEMENT</b>	<b>AMOUNT</b>		
1	District Staff	\$17,778,991		
	Resolution No. 2021-044	\$5,270,000		
	Total amount	\$23,048,991		
2	Construction Engineering Support Amendment 12 PSA 2011-B-2 Resolution No. 2016-089	\$6,600,000		
3	Environmental Compliance PSA 2017-B-09 Resolution No. 2017-002	\$903,152		
4	Interim Construction Scheduling and Claim Support PSA 2017-B-17 GM Report	\$59,600		
5	Construction Scheduling and Claim Support PSA 2018-B-07 Resolution No. 2017-105 Including Amendment 1	\$2,320,164		
	Amendment 2 Resolution No. 2021-044	\$925,000		
	Total PSA 2018-B-07	\$3,245,164		

6	<p>Steel Fabrication Shop Inspection PSA 2018-B-06 Resolution No. 2017-115, including Amendment 1</p> <p>Amendment 2, including contingency Resolution No. 2020-027</p> <p>Total PSA 2018-B-06</p>	<p>\$1,534,500</p> <p>\$198,000</p> <p>\$1,732,500</p>			
7	<p>Suicide Deterrent Net System Fabrication Shop Inspection PSA 2018-B-075 Resolution No. 2018-059, including Amendments 1 and 2</p> <p>Amendments 3, 4 and 5 Resolution No. 2021-013</p> <p><i>Proposed additional amount (this report)</i></p> <p><i>Total proposed amount (this report)</i></p>	<p>\$440,000</p> <p>\$179,000</p> <p><u>\$134,000</u></p> <p><u>\$753,000</u></p>			
8	<p>Temporary Structures Engineering Advisor Support Services PSA 2018-B-082 Resolution No. 2018-066, including Amendment 1</p> <p>Amendment 2, including contingency Resolution No. 2020-082</p> <p>Total PSA 2018-B-082</p>	<p>\$957,550</p> <p>\$1,474,000</p> <p>\$2,431,550</p>			
9	<p>Field Inspection Support Services PSA 2018-B- 084 Resolution No. 2018-080, including Amendment 1</p>	<p>\$4,070,000</p>			



	Amendment 2 Resolution No. 2021-044	\$1,715,000			
	Total PSA 2018-B-084	\$5,785,000			
10	Maintenance Traveler System Fabrication Shop Inspection PSA 2019-B-007 Resolution No. 2019-048  <i>PSA rescinded</i>	<u>(\$704,000)</u>			
11	<i>Maintenance Traveler System Fabrication Shop Inspection PSA 2021-B-073 Proposed Amount including contingency (this report)</i>	<u>\$2,860,000</u>			
SUBTOTAL CONSTR. ADMIN & ENG., INCLUDING THE PROPOSED BUDGET INCREASE		<u>\$47,418,957</u>	AVAILABLE AMOUNT:  \$45,128,957	PROPOSED INCREASE:  \$2,290,000	PROPOSED REVISED AMOUNT:  \$47,418,957
<b>TOTAL PROJECT #1526 BUDGET</b>			<b>AVAIL. BUDGET</b>  \$204,342,868	<b>PROPOSED INCREASE:</b>  \$2,290,000	<b>PROPOSED REVISED BUDGET:</b>  \$206,632,868

**Table 2: Physical Suicide Deterrent System (SDS) Project Funding Plan**

<b>SOURCE OF FUNDS</b>	<b>AMOUNT</b>	<b>PROPOSED ADJUSTMENT</b>	<b>ADJUSTED AMOUNT</b>
MTC-STP Funds	\$74,910,000	\$0	\$74,910,000
Caltrans HBP Funds	\$58,140,000	\$0	\$58,140,000
GGBHTD District	\$63,864,407	\$2,290,000	\$66,154,407
MHSOAC	\$7,000,000	\$0	\$7,000,000
Cell Site Revenues	\$389,736	\$0	\$389,736
Donations	\$38,725	\$0	\$38,725
<b>TOTAL</b>	<b>\$204,342,868</b>	<b>\$2,290,000</b>	<b>\$206,632,868</b>

**TABLE 3: The history of PSA No. 2018-B-075**

<b>ACTION</b>	<b>AMOUNT</b>
Award PSA No. 2018-B-075, Golden Gate Bridge Physical Suicide Deterrent System, Suicide Deterrent Net System Fabrication Shop Inspection Services Resolution No. 2018-059	\$399,501
First Amendment - time only	\$0,00
Second Amendment – additional quality assurance shop inspection services	\$38,530 (from contingency)
Third Amendment, additional quality assurance shop inspection services Resolution No. 2021-013	\$162,690
Fourth Amendment- time only	\$0,00
Fifth Amendment, additional quality assurance shop inspection services	\$15,979 (from contingency)
<i>Proposed Sixth Amendment, additional quality assurance shop inspection services.</i>	\$134,000
<b>PROPOSED TOTAL PSA AMOUNT</b>	<b>\$750,700</b>

**TABLE 4: The history of PSA No. 2021-B-073**

<b>ACTION</b>	<b>AMOUNT</b>
<i>Proposed PSA No. 2021-B-073, Golden Gate Bridge Physical Suicide Deterrent System, Maintenance Traveler Fabrication Shop Inspection Services</i>	<i>\$2,600,000</i>
<b>PROPOSED TOTAL PSA AMOUNT</b>	<i>\$2,600,000</i>

THIS PAGE INTENTIONALLY LEFT BLANK