



Agenda Item No. (3)

To: Building and Operating Committee/Committee of the Whole
Meeting of October 27, 2022

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

Subject: **APPROVE ACTIONS RELATIVE TO PROFESSIONAL SERVICES AGREEMENT NO. 2010-B-1, GOLDEN GATE BRIDGE SEISMIC AND WIND RETROFIT, PHASE IIIB, DESIGN SERVICES, WITH HDR ENGINEERING, INC.**

Recommendation

The Building and Operating Committee recommends that the Board of Directors approve the following actions relative to Professional Services Agreement (PSA) No. 2010-B-1, *Golden Gate Bridge Seismic and Wind Retrofit, Phase IIIB, Design Services*:

1. Authorize execution of the Fourth Addendum to the Seventh Amendment to Professional Services Agreement (PSA) No. 2010-B-1, *Golden Gate Bridge Seismic and Wind Retrofit Phase IIIB Design Services*, with HDR Engineering, Inc., Walnut Creek, CA, in an amount not-to-exceed \$40,000, for continuation of engineering support services during construction of the Golden Gate Bridge Wind Retrofit Project (Project #1528), for the total Seventh Amendment amount of \$476,752; and,
2. Establish a 15% contingency for the addendum in the amount of \$6,000,

with the understanding that sufficient funds to finance the Fourth Addendum to the Seventh Amendment to the PSA and its contingency are available in the budget for construction of the Golden Gate Bridge Wind Retrofit Project (Project #1528).

This matter will be presented to the Board of Directors at its October 28, 2022, meeting for appropriate action.

Summary

By Resolution No. 2009-070, the Board of Directors authorized execution of a Professional Services Agreement, PSA No. 2010-B-1, with HDR Engineering, Inc., to prepare the final design and plans and technical specifications for the Golden Gate Bridge Seismic and Wind Retrofit of the Suspension Bridge, Phase IIIB, Project.

By Board Resolution No. 2014-107, the construction of the Wind Retrofit was separated from the Phase IIIB Project and included in construction Contract 2016-B-01 that also involves construction of the Golden Gate Bridge Physical Suicide Deterrent System (Project #1526). The inclusion of the Wind Retrofit in Contract 2016-B-01 was necessary to mitigate any adverse effect the Physical Suicide Deterrent System could have on the Suspension Bridge wind resiliency.

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"). The Notice to Proceed was issued February 13, 2017.

The Wind Retrofit is installed on the west side of the Suspension Bridge main span and involves removal of the original wide picket railing sections between the original railing posts, erection of new thin picket railing sections, and installation of a quarter-circle wind fairing along the outside edge of the west sidewalk. The existing railing posts were assumed not to be changed.

Consistent with established engineering practice, and as referenced in the PSA with HDR Engineering, Inc., the administration and management of the Wind Retrofit construction requires that the Project design consultant provide engineering support services during construction of the Wind Retrofit. HDR Engineering, Inc., as the consultant responsible for the design, is uniquely qualified and capable to perform the design engineering support services during construction.

By Resolution No. 2016-088, the Board of Directors authorized the General Manager to execute Amendment No. 7 to PSA No. 2010-B-1, *Golden Gate Bridge Seismic and Wind Retrofit, Phase IIIB, Design Services*, to HDR in the amount of \$300,000, to perform the above noted engineering support services, and approved a contingency for Amendment No. 7 to the PSA in the amount of \$30,000.

The engineering support services consist of: (1) reviewing and recommending approval of Contractor's technical submittals, working drawings, and requests for substitutions; (2) preparing written responses to Contractor's requests for information regarding the design; (3) providing recommendations for the resolution of contractor verified site condition issues during construction; and, if necessary, (4) preparing plans and specifications for construction contract change orders covering changes to the design details.

The Wind Retrofit fabrication and installation was assumed to take place within the first 24 months of the project. The actual fabrication and installation did not progress as planned and exceeded the originally planned durations. The work associated with the Wind Retrofit construction is estimated to be completed by the end of 2022.

As the Wind Retrofit work progressed, the number of Contractor's requests for information, resubmissions of work plans and shop drawings, other project related submissions, and the number of coordination meetings that required the consultant's involvement exceeded the effort that had been originally anticipated. Also, during the installation of the new railing sections, the Contractor discovered areas of deterioration at some of the existing railing posts, which required modifications to the new railing connection details, and some of the existing posts were determined to be inadequate for use and required replacement. The Golden Gate Bridge, Highway and

Transportation District (District) provided direction to the Contractor to make the changes. Staff requested HDR Engineering, Inc. to develop engineering drawings for a contract change order to compensate the Contractor for the changes.

Staff had been monitoring the budget of the 7th Amendment to the PSA with HDR Engineering, Inc. to determine whether and when budget increases were necessary to account for the increased costs of the HDR Engineering, Inc. services. The to-date increases to the 7th Amendment budget are summarized in TABLE 2 at the end of this report. Based on the latest review of the budget and the required extension of HDR Engineering, Inc.'s engineering support services through the anticipated Wind Retrofit completion at the end 2022, staff has determine that the extension of these services require an increase in the authorized 7th Amendment budget.

Engineering staff requested HDR Engineering, Inc., to provide a cost proposal for the extension of HDR Engineering, Inc.'s services associated with the Wind Retrofit work. HDR Engineering, Inc., provided a cost proposal in the amount of \$40,000. Engineering staff has reviewed the proposal and found it to be reasonable in terms of the consultant's budgeted labor hours to perform the additional scope of services requested by the District, and consistent with HDR Engineering, Inc.'s audited labor and overhead billing rates.

The District's Disadvantaged Business Enterprise (DBE) Program Administrator has determined that, because HDR Engineering, Inc. will self-perform this work, there is no DBE participation for the additional scope of work included in this 4th Addendum.

Staff recommends that the Building and Operating Committee recommend that the Board of Directors authorize the execution of the 4th Addendum to the 7th Amendment to PSA No. 2010-B-1, with HDR Engineering, Inc., in the not to exceed amount of \$40,000, to perform the additional services as presented in this report. HDR Engineering, Inc., will be compensated for actual time expended and expenses incurred. Staff also recommends that a contingency for this 4th Addendum in the amount of \$6,000 be established for any additional scope of services that may develop while work progresses.

Fiscal Impact

The *Golden Gate Bridge Wind Retrofit Project* (Project #1528), is included in the FY 2022/23 Bridge Division Capital Budget at a total cost of \$11,860,000 (100% Federal funding). The budget for Project #1528 includes a budget in the amount of \$1,423,206 for the Wind Retrofit Construction Engineering, which includes the engineering support services by HDR Engineering, Inc.

It is proposed that the \$40,000 cost of the 4th Addendum to the 7th Amendment to PSA No. 2010-B-1 with HDR Engineering, Inc., and its \$6,000 contingency, for the total amount of \$46,000, be financed with savings in Project #1528 Construction Engineering budget items as follows:

- \$10,600 contingency authorized by the Board for the 2nd Addendum to the 7th Amendment to PSA No. 2010-B-1,
- \$5,895 that remains from the authorized \$115,500 budget for the Wind Retrofit fabrication shop inspections (this fabrication has been completed) under PSA No. 2018-B-06, Golden Gate Bridge Physical Suicide Deterrent System and Wind Retrofit Steel Fabrication Shop

- Inspection Services, and
- \$29,505 from the Project #1528 District Staff budget for the Construction Engineering related to the Wind Retrofit construction.

TABLE 1 - PROJECT BUDGET - #1528, Wind Retrofit Construction

BUDGET ELEMENT		BUDGET ELEMENT AMOUNT	PROPOSED ADJUSTME NT	ADJUSTED AMOUNT
Construction Contract		\$9,488,038	0	\$9,488,038
Construction Contingency		\$948,756	0	\$948,756
Construction Engineering:		\$1,423,206	0	\$1,423,206
	CONSTR. ENGINEERING SUB- ELEMENT	CONSTR. ENG SUB- ELEMENT BUDGET		
1	District Staff and General Project Expenditures	\$650,591		
	Reallocation from Interim Construction Scheduling and Claims	\$2,500		
	Reallocation to Construction Engineering Support, Resolution No. 2020-028	(\$85,012)		
	<i>Proposed reallocation to 4th Addendum to 7th Amendment to PSA No. 2010-B-1 (proposed in this report)</i>	<u>(\$29,505)</u>		
	<i>Proposed Revised Budget</i>	<u>\$538,574</u>		
2	Construction Engineering Bid Support, 5 th Amendment and Contingency to PSA 2010-B-1 with HDR	\$77,500		
	Reallocation to Construction Engineering Support, Resolution No. 2020-028	(\$32,340)		

BUDGET ELEMENT		BUDGET ELEMENT AMOUNT	PROPOSED ADJUSTME NT	ADJUSTED AMOUNT
Construction Contract		\$9,488,038	0	\$9,488,038
Construction Contingency		\$948,756	0	\$948,756
Construction Engineering:		\$1,423,206	0	\$1,423,206
	CONSTR. ENGINEERING SUB- ELEMENT	CONSTR. ENG SUB- ELEMENT BUDGET		
	Revised Budget	\$45,160		
3	Construction Engineering Support, 7 th Amendment, including 1 st Addendum to PSA 2010-B-1 with HDR 2 nd Addendum, Resolution No. 2022-028, including contingency 2 nd Addendum contingency, Resolution No. 2022-028 <i>Proposed allocation to 4th Addendum to 7th Amendment to PSA No. 2010-B-1 (proposed in this report)</i> <i>Proposed 4th Addendum, (proposed in this report)</i> <i>Proposed 4th Addendum contingency (proposed in this report)</i> <i>Proposed Revised Budget</i>	\$330,000 \$117,352 (\$10,600) <u>\$40,000</u> <u>\$6,000</u> <u>\$482,752</u>		
4	Environmental Compliance PSA 2017-B-09 Resolution No. 2017-002	\$67,979		

BUDGET ELEMENT		BUDGET ELEMENT AMOUNT	PROPOSED ADJUSTMENT	ADJUSTED AMOUNT
Construction Contract		\$9,488,038	0	\$9,488,038
Construction Contingency		\$948,756	0	\$948,756
Construction Engineering:		\$1,423,206	0	\$1,423,206
	CONSTR. ENGINEERING SUB-ELEMENT	CONSTR. ENG SUB-ELEMENT BUDGET		
5	Interim Construction Scheduling and Claim Support PSA 2017-B-17 GM Report Reallocate to District staff and General Expenditure Final Amount	\$7,000 <u>(\$2,500)</u> \$4,500		
6	Construction Scheduling and Claim Support PSA 2018-B-07 Resolution No. 2017-105	\$174,636		
7	Steel Fabrication Shop Inspection PSA 2018-B-06 Resolution No. 2017-115 <i>Proposed reallocation to 4th Addendum to 7th Amendment to PSA No. 2010-B-1 (proposed in this report)</i> <i>Proposed revised budget</i>	\$115,500 <u>(\$5,895)</u> \$109,605		
SUBTOTAL CONSTR. ENG., INCLUDING THE PROPOSED AMENDMENT		\$1,423,206		
TOTAL PROJECT BUDGET		\$11,860,000	0	\$11,860,000

TABLE 2 - History of PSA No. 2010-B-1:

	DATE APPROVED	DESCRIPTION	AMOUNT	SOURCE OF FUNDS
PSA No. 2010-B-1	11/17/2010	Original Contract PSA No. 2010-B-1, Phase IIIB Design Services; Resolution No. 2009-070	\$18,258,232	100% Federal (part of the Phase IIIB Design budget)
1 st Amendment	10/3/2012	Wind-Lock Repair Design; (under the GM authority)	\$24,576	100% District (not part of the Phase IIIB Design budget)
2 nd Amendment	7/3/2013	Additional Wind-Lock Repair Design; (under the GM authority)	\$11,449	100% District (not part of the Phase IIIB Design budget)
3 rd Amendment	9/26/2013	No cost time extension	\$0	
4 th Amendment	3/4/2015	EDD Testing, Resolution No. 2015-008	\$1,521,789	100% Federal (part of the Phase IIIB Design budget)
1 st Addendum to 4 th Amendment	1/25/2016	Additional EDD Testing; (under the GM authority)	\$152,034	
		Total 4 th Amendment	\$1,673,823	
5 th Amendment	10/9/2015	Bid support during advertising period of the Wind Retrofit, Contract No. 2016-B-1, Resolution No. 2015-090	\$70,469	100% Federal (part of the Wind Retrofit Construction budget)
		----- Actual Spent	----- \$45,160	
		Remaining Balance reallocated to 2 nd Addendum to 7 th Amendment, Resolution No. 2020-028	(\$25,309)	

	DATE APPROVED	DESCRIPTION	AMOUNT	SOURCE OF FUNDS
6 th Amendment	12/31/2016	No cost time extension	\$0	
7 th Amendment	1/16/2017	Engineering support services during the Wind Retrofit Project construction, Resolution No. 2016-088	\$300,000	100% Federal (part of the Wind Retrofit Construction budget)
1 st Addendum	12/18/2019	Additional engineering support services during the Wind Retrofit construction	\$30,000	
2 nd Addendum	5/29/2020	Additional engineering support services during the Wind Retrofit construction	\$106,752	
3 rd Addendum	01/25/2021	No cost time extension	\$0	
<i>Proposed 4th Addendum, this report</i>		<i>Additional engineering support services during the Wind Retrofit construction</i>	<i><u>\$40,000</u></i>	
		----- <i>Proposed Total 7th Amendment</i>	----- <i><u>\$476,752</u></i>	
8 th Amendment	3/6/2017	Additional design services, Resolution No. 2017-017	\$2,200,000	100% Federal (part of the Phase IIIB Design budget)
9 th Amendment	May 26, 2017	Wind tunnel testing, Resolution No. 2017-047	\$191,000	100% Federal (part of the Phase IIIB Design budget)
1 st Addendum to 9 th Amendment	11/20/2017	Additional wind tunnel testing, Resolution No. 2017-106	\$216,500	

	DATE APPROVED	DESCRIPTION	AMOUNT	SOURCE OF FUNDS
2nd Addendum to 9 th Amendment	07/27/2020	Additional wind tunnel testing, Resolution No. 2020-044	\$260,218	
3rd Addendum to 9 th Amendment	06/01/2021	Additional wind tunnel testing, Resolution No. 2020-044 contingency	\$39,033	
4 th Addendum to 9 th Amendment	06/25/2021	Additional wind tunnel testing and acoustic analysis of the new bridge railing, Resolution No, 2021-043	\$130,420	
		Total 9th Amendment	\$837,171	
10 th Amendment	8/14/2017	Assistance with preparation of the Risk Assessment Plan and Major Project Management Plan, Resolution No. 2017-068	\$399,000	100% Federal (part of the Phase IIIB Design budget)
11 th Amendment	6/26/2019	Additional design services to develop stainless steel welding procedures for the fabrication of the energy dissipation devices, Resolution No. 2019-037	\$235,500	100% Federal (part of the Phase IIIB Design budget)
		TOTAL PSA AMOUNT <i>Proposed</i>	\$24,161,663	

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