BIGGS CARDOSA ASSOCIATES INC STRUCTURAL ENGINEERS

500 S. Main Street, Ste 400 Orange, CA 92868-4507 Telephone 714-550-4665 Facsimile 714-550-7294

January 3, 2019 2010211D

Mr. Jonathan Claudio City of Huntington Beach 2000 Main Street, P.O. Box 190 Huntington Beach, CA 92648

Subject:Bridge Rehabilitation - Admiralty Drive Bridge
Construction Engineering and Environmental Monitoring Services and
Additional Regulatory Permitting Assistance (Optional)
Request for Contract Change Order No. 15

Dear Jonathan:

As requested, Biggs Cardosa Associates, Inc. is hereby providing a proposal for construction engineering and environmental monitoring services for the Admiralty Drive Bridge Rehabilitation Project. We understand the City's goal is to construct the Admiralty Dr. Bridge during FY 19/20. Also, there may be a need for additional regulatory permitting assistance before the start of construction. Additional regulatory permitting assistance would be needed if a permit term is expiring and additional services would be required to coordinate with the regulatory agencies to renew the expiring permits issued for the project.

Construction Engineering Services

The following items of scope have resulted in an increased scope of services:

Phase 5 – Construction Engineering Services

Task 5.0 - Project Management During Construction

We will provide management, administration, billing, coordination, etc. required to complete base construction services.

<u>Task 5.1 – Pre-construction Conference</u> We will participate in a pre-construction conference.

Task 5.2 - Construction Observations and Site Meetings

We will monitor the construction schedule and perform periodic site visits during construction and report on the progress and quality of the work and compliance with the final plans and specification. Also when requested by the City, we will participate in site meetings to discuss field issues and clarify the project drawings in person. Up to 104 hours of construction observations and site meetings are assumed.

Task 5.3 – Response to RFIs

We will respond to Contractor's Requests for Information (RFIs) to clarify our drawings and/or intent. We will also issue any required Contract Change Orders (CCOs). Generally, CCOs are required due to differing site conditions or because of Contractor's deviations from the plans during construction and mitigation measures are needed. However, if the CCO is required due to errors or omissions on our plans, it is our policy to produce the required CCO at no cost to our Client.



Task 5.4 - Review Contractor's Submittals

We will review concrete mixes, shop drawings and all Contractor submittals required by the specifications.

Task 5.5 - Produce Record Set of Drawings

At the end of construction, we will generate a Record Set of Drawings incorporating changes to our plans that occurred during construction. We will use information from any Contractor-generated or inspector-generated set of red-marked drawings and information we have collected from RFIs during construction.

The Record Set of Drawings shall include color photographs (in hard copy and jpg format) that clearly show all components of the as-built project, and that are accompanied by a site plan that notes the location of each photographic viewpoint and the date and time of each photograph. At a minimum, the photographs shall be from representative viewpoints along the Huntington Beach Channel located directly upcoast, downcoast, and seaward of the project site, and show the entirety of the restored revetment and areas where vegetation was removed and subsequently replaced. The Record Set of Drawings shall be submitted with certification by a licensed civil engineer.

Phase 6 - Environmental Monitoring Services

Task 6.0 - Project Management During Monitoring

We will provide management, administration, billing, coordination, etc. required to complete Environmental Monitoring.

Task 6.1 - Pre-Construction Caulerpa Survey

GPA will conduct an underwater Surveillance Level Survey for Caulerpa (*Caulerpa taxifolia*) prior to project initiation, as required by National Marine Fisheries Service (NMFS) and regulatory permits and defined within the NMFS Caulerpa Control Protocol (Version 4, February 25, 2008). A minimum of 20 percent of the channel bottom within the project area will be inspected by divers in SCUBA (self-contained underwater breathing apparatus) gear using underwater transects, or from the surface using remote underwater cameras, between 30 to 90 days of project initiation during the Caulerpa high growth season (typically March through October). GPA estimates this will require one day of surveying. If Caulerpa is found, the National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) will be notified within 24 hours of the discovery. GPA will submit the survey forms and survey report to the City, NMFS, CDFW, U.S. Army Corps of Engineers (USACE), and California Coastal Commission (CCC) within 15 days after completion of the survey.

Task 6.2 - Pre-Construction Eelgrass Survey

GPA will conduct pre-construction eelgrass (*Zostera marina*) surveys beneath the bridge in the project area prior to project initiation, as required by regulatory permits. The surveys will be conducted by divers in SCUBA gear using underwater transects, or from the surface using remote underwater cameras, between 30 to 90 days of project initiation during the eelgrass high growth season (typically March through October). The eelgrass surveys will be performed concurrently with the Caulerpa surveys, and will require one day of surveying. The areas vegetated with eelgrass, as well as unvegetated areas within the survey area, will be documented and mapped. The pre-construction surveys will be conducted according to the survey parameters provided in the Southern California Eelgrass Mitigation Policy and will be valid until the next period of active growth. GPA will submit a survey report to the City, NMFS, CDFW, USACE, and CCC within 15 days following the survey.



Task 6.3 - Pre-Construction Plant and Wildlife Surveys

GPA will conduct pre-construction wildlife surveys no more than 48 hours prior to construction to determine the presence/absence of wildlife species, including special-status species, within 100 feet of the construction area. GPA will also survey for rare plant species within 50 feet of the construction area. Surveys will be repeated if construction activities are suspended for five days or more. If any special status or otherwise protected species are identified, appropriate measures will be developed and implemented to avoid impacts on these species, in consultation with the City and regulatory agencies as applicable.

Task 6.4 - Pre-Construction Nesting Bird Surveys and Nest Monitoring

Based on the NES and MND completed for the project, GPA understands that the City intends to schedule construction activities including vegetation removal, outside of the nesting bird/raptor season (February 1 to September 15), if feasible. However, in the event that construction, including vegetation removal, must be conducted during nesting season, GPA will perform nesting bird surveys no more than 48 hours prior to construction to determine if nesting birds or active nests are within vegetation slated for removal, on the bridge, beneath the bridge, or within 300 feet of the construction area. Surveys will be repeated if construction activities are suspended for five days or more.

If nesting birds are found within 300 feet of the construction/vegetation removal area, GPA will assist the City with installation of appropriate buffers (typically 300 feet for songbirds and 500 feet for raptors), in coordination with the appropriate resource agencies, to ensure that nesting birds and/or their nests are not harmed. If any occupied nests of special-status species are identified, GPA will monitor the nests weekly (expected to be up to 12 visits over eight weeks), and construction activities within 300 feet of the nest (500 feet for raptors) to ensure that construction noise levels do not exceed 85 dB peak until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting.

If any special-status or otherwise protected species are found in or adjacent to the construction area, GPA will coordinate with the City and regulatory agencies, if warranted, to develop and implement appropriate avoidance measures. GPA will summarize the results of the surveys and any subsequent coordination in a memo report for the project file.

Task 6.5 - Construction and Permit Compliance Monitoring

GPA will assist the City with ensuring that construction-related impact avoidance, minimization, and mitigation measures are monitored and successfully implemented. Prior to construction, GPA will compile CEQA, NEPA, and regulatory permit requirements and prepare a construction monitoring checklist that will be used to document compliance through the construction period and, if necessary, provide documentation to regulatory agencies. The checklist will be included in monthly construction monitoring reports. GPA will monitor specific activities as required by project permits, including oversight of designation and flagging of environmentally sensitive areas, implementation of Best Management Practices (BMP), and invasive species removal, if required. GPA will measure turbidity, dissolved oxygen, temperature, and pH levels downstream of the Admiralty Drive Bridge construction area per the requirements of the 401 Water Quality Certification. Water samples will be taken daily during the time that the coffer dam is in place, expected to be approximately one to three weeks. Results will be provided daily to the City, and will be included in the monthly construction monitoring reports. GPA will record the results of each monitoring visit and will summarize the results in a monthly construction monitoring report for the project file. GPA will coordinate with the City as needed to correct any conditions that are out of compliance during monitoring visits. GPA will be on call to conduct additional monitoring visits if any situations arise in which additional coordination is needed, such as discovery of unanticipated resources, or other situations that could potentially result in adverse effects on protected species or in permit non-compliance.



Task 6.6 - Agency Submittals and Notifications

GPA will coordinate with BCA and the City to complete any required pre-construction submittals and notification to regulatory agencies as part of environmental approvals for the project, including the USACE, Regional Water Quality Control Board, CCC, and Caltrans (GPA estimates up to 15 submittals may be required). Pre-construction notifications may include those required by regulatory permits prior to initiating construction, and submittals may include items such as final design plans. GPA will coordinate with the City to gather and/or prepare the necessary documentation and will submit the information to the agencies, as required.

During the construction phase, GPA will provide required notifications and/or reports to comply with permits. These notifications may be needed if any unanticipated issues arise in the field, or if certain project activities require additional coordination with regulatory agencies.

GPA will coordinate with BCA and the City to complete any required post-construction submittals and notifications to regulatory agencies as part of environmental approvals for the project. Notifications may include those required by regulatory permits to document and summarize the results of project construction and post-construction conditions, including the USACE Post-project Implementation Memorandum. GPA will coordinate with BCA and the City to gather and/or prepare the necessary documentation and will submit the information to the agencies, as required.

GPA will keep a detailed written record of monitoring activities for the duration of the project, including written monitoring report forms and a copy of all correspondence regarding environmental compliance. Following construction, GPA will provide copies of this information to the appropriate agencies, and will provide the necessary documentation to the resource agencies needed to comply with environmental permits.

Task 6.7 - Environmental Commitment Record Maintenance and Updates

GPA will prepare, update, and maintain the environmental commitments record (ECR) and will document completion of all environmental commitments throughout the pre-construction and construction monitoring phases (GPA estimates monthly updates will be required). GPA will update and maintain both electronic and hard copies of the ECR and all documentation associated with environmental compliance and will coordinate with the City regarding monthly updates to the ECR and delivery of the final ECR to Caltrans.

Task 6.8 - (Optional) Post-construction Eelgrass Surveys

If eelgrass is observed during pre-construction surveys, GPA will conduct two years of postconstruction eelgrass monitoring surveys per the guidelines provided in the Southern California Eelgrass Mitigation Policy and the requirements of NMFS and USACE. The surveys will document the changes in the eelgrass habitat (areal extent, bottom coverage, and shoot density within eelgrass bunches). The second and third post-construction surveys will be used to evaluate any indirect impacts on eelgrass that may have resulted from the project.

The results of each survey will be summarized in an Eelgrass Survey Report. GPA will submit the survey reports to the NMFS, CDFW, USACE, and CCC within 30 days of completion of the surveys. If the post- construction surveys identify that impacts on eelgrass have resulted from the project, consultation with NMFS and other regulatory agencies will be conducted to determine if compensatory mitigation is necessary.



Construction Engineering and Environmental Monitoring Services (Construction Phase)

Please see the attached fee spreadsheet of the proposed services during the construction of the Admiralty Drive Bridge, for further information on the fee breakdown.

The additional services requested amount to the following:

GPA Consulting	\$74,797
W.G. Zimmerman	\$17,343
Biggs Cardosa	\$84,386
	\$176,526

This requested fee is proposed to be broken up as follows:

	Requested Fee
Admiralty Drive Bridge	
Phase 5 – Base Construction Services	\$92,359
Phase 6 – Environmental Monitoring Services	\$84,167
Requested Fee Total	\$176,526

If needed, a 10% contingency for Miscellaneous Engineering and Environmental Services (Construction Phase) is also requested.

10% Contingency

\$17,653

We look forward to continuing to work with you on this project. Should you have any questions or require any additional information, please do not hesitate to contact me at the telephone number, fax number or address on the front page of this letter, or by email at mthomas@biggscardosa.com.

Sincerely,

BIGGS CARDOSA ASSOCIATES, INC.

Michael A. Thomas, SE Principal, Project Manager Accepted,

CITY OF HUNTINGTON BEACH

Name:	
Title:	



Additional Regulatory Permitting Assistance (Optional)

GPA Consulting (GPA) will monitor the expiration timelines of the regulatory permits for the project. If a permit term is expiring, GPA will notify Biggs Cardosa (BCA) and the City of Huntington Beach (City) and will coordinate with the regulatory agencies to renew the expiring permits issued for the project. The additional scope of work would impact the following tasks:

Phase 2 (Optional) - Environmental Services (Optional Services)

Task 2.5 (Optional) - Environmental Permitting

The project would involve temporary and permanent activities within the Queen Elizabeth Passage in Huntington Harbor, which is considered a navigable water of the U.S. and is within the coastal zone. Implementation of the project would include temporary activities that would be needed to construct the project. As a result, the following permits and agreements were obtained and need to be renewed if endanger of expiring before the construction period:

- ACOE Section 404 Construction Authorization (Nationwide Permit) and Rivers and Harbors Act Section 10
- Regional Water Quality Control Board (RWQCB) Section 401 Water Quality Certification
- California Department of Fish and Game Section 1602 Streambed Alteration Agreement
- U.S. Coast Guard Rivers and Harbors Act Section 9 Bridge Permit
- California Coastal Commission Coastal Development Permit/Local Coastal Permit

GPA will compile the necessary information and will prepare the application/notification packages for submittal **when and if permit term is expiring.** GPA will then submit the application package to BCA and will coordinate with BCA, the City, Caltrans, and resource agencies (if requested) as needed to resolve issues and obtain necessary approvals.

Environmental Services (Optional Services Design Phase)

Please see the attached fee spreadsheet of the proposed **Additional Regulatory Permitting Assistance** for the Admiralty Drive Bridge, for further information on the fee breakdown.

The optional services may amount to the following:

GPA Consulting	\$8,274
Biggs Cardosa Associates	\$1,057
	\$9,331

This requested fee is proposed to be added as follows:

Requested Added Fee

\$9,331

Admiralty Drive Bridge	
Phase 2 – Environmental Services	\$9,331

Requested Fee Total

3CR

If needed, a 10% contingency for Environmental Services (Optional Services Design Phase) is also requested.

10% Contingency

\$933

We look forward to continuing to work with you on this project. Should you have any questions or require any additional information, please do not hesitate to contact me at the telephone number, fax number or address on the front page of this letter, or by email at mthomas@biggscardosa.com.

Sincerely,

Accepted,

BIGGS CARDOSA ASSOCIATES, INC.

VL

Michael A. Thomas, SE Principal, Project Manager

CITY OF HUNTINGTON BEACH

Name:	
Title:	



PHASE 5: CONSTRUCTION ENGINEERING SERVICES

		Biggs Cardosa Associates, Inc.	losa Associ	iates, Inc.			2	W. G. Zimmerman	erman	U	GPA Consulting	ting							
		M. Thomas	M. Thomas R. Sanguinetti E. Pfeifer		D. Punia	R. Martinez	D. Mancini	Zimmerman C	Zimmerman C. Cordero M. Brust		R. Galvin N	M. Schrader	E. Silva S. Glowacki		J. Vu	J. Morrison A. Shippey		K. Warner	Total
	Task	Principal	Principal Engineering	Senior	Staff	Staff	Sr, Computer	Project	Project	Associated Principal Env. Senior Assoc. Senior Env.	rincipal Env. S	Senior Assoc.	Senior Env.	Senior	Associate	Associate	Biologist	Associate	Hours
			Manager	Engineer	Engineer	Engineer	Drafter	Manager	Engineer	Engineer	Planner	Planner	Planner	Biologist	Biologist	Biologist		Biologist	
	Construction Services																		
5.0 F	Project Management During Construction	10	70					8											88
5.1	Pre-Construction Conference		12						9	9									24
5.2 (Construction Observations and Meetings		8	76					4	16									104
5.3	Response to RFIs		24	40	40			4	8	36									152
5.4 F	Review Contractor's Submittals		24	40	99	80			8	40									252
5.5 F	Produce Record Set of Drawings		12			80	8			9									34
	Subtotal Hours	10	150	156	100	88	80	12	26	104	0	0	0	0	0	0	0	0	654
	Hourly Rate	\$290.69	\$176.11	\$151.33	\$107.74	\$108.60	\$119.26	\$236.61	\$173.51	\$94.64	\$207.36	\$152.96	\$131.12	\$129.76	\$92.18	\$73.85	\$91.74	\$92.74	
	Subtotal Budget	\$2,907	\$26,417	\$23,608	\$10,774	\$9,556	\$954	\$2,839	\$4,511	\$9,843	\$0	\$0	\$0	\$0	0\$	\$0	\$0	\$0	\$91,409
	Reimbursable Costs																		
	Preproduction, Shipping and Mileage	\$800						\$150											\$950
	TOTAL CONSTRUCTION ENGINEERING SERVICES																		\$92,359

PHASE 6: ENVIRONMENTAL MONITORING SERVICES

		M. Thomas	M. Thomas R. Sanguinetti E. Pfeifer	E. Pfeifer	D. Punia	R. Martinez	D. Mancini	inez D. Mancini Zimmerman C. Cordero	C. Cordero	M. Brust	R. Galvin	R. Galvin M. Schrader E. Silva		S. Glowacki	J.Vu	J. Morrison	A. Shippey	K. Warner	Total
	Task	Principal	Engineering	Senior	Staff	Staff	Sr, Computer	Project		Associated F	Principal Env.	Principal Env. Senior Assoc. Senior Env.	Senior Env.	Senior	Associate	Associate	Biologist	Associate	Hours
			Manager	Engineer	Engineer	Engineer	Drafter	Manager		Engineer	Planner	Planner	Planner	Biologist	Biologist	Biologist		Biologist	
	Environmental Services																		
6.0	Project Management During Monitoring	8	40					-			8			24					80
6.1	Pre-Construction Caulerpa Surveys											4		12		36			52
6.2	Pre-Construction Eelgrass Surveys											4		12	12	36			64
6.3	Pre-Construction Plant and Wildlife Surveys											4			12			8	24
6.4	Pre-Construction Nesting Bird Surveys and Monitoring											4		16	32				52
6.5	Construction and Permit Compliance Monitoring											16		80	120				216
6.6	Agency Submittals and Notifications											8		32	12				52
6.7	Environmental Commitments Record and Updates													24	40				64
6.8	(Optional) Post-Construction Eelgrass Surveys											8		32	24	40	16		120
	Subtotal Hours	80	40	0	0	0	0	0	0	0	80	48		232	252	112	16	8	724
	Hourly Rate	\$290.69	\$176.11	\$151.33	\$107.74	\$108.60	\$119.26	\$236.61	\$173.51	\$94.64	\$207.36	\$152.96	\$131.12	\$129.76	\$92.18	\$73.85	\$91.74	\$92.74	
	Subtotal Budget	\$2,326	\$7,044	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,659	\$7,342	\$0	\$30,103	\$23,228	\$8,272	\$1,468	\$742	\$82,184
	Reimbursable Costs																		
	Preproduction, Shipping, Mileage and SCUBA Gear										\$1,983								\$1,983
	TOTAL ENVIRONMENTAL MONITORING SERVICES																		\$84,167

Total	Hours			1,378		\$173,593		\$2,933	\$176,526
K. Warner	Associate	Biologist		8	\$92.74	\$742			
A. Shippey	Biologist			16	\$91.74	\$1,468			
J. Morrison	Associate	Biologist		112	\$73.85	\$8,272			
J. Vu	Associate	Biologist		252	\$92.18	\$23,228			
S. Glowacki	Senior	Biologist		232	\$129.76	\$30,103			
E. Silva	Senior Env.	Planner			\$131.12	\$0			
M. Schrader	 Senior Assoc. 	Planner		48	\$152.96	\$7,342			
R. Galvin	Principal Env. S	Planner		8	\$207.36	\$1,659		\$1,983	
M. Brust	Associated F	Engineer		104	\$94.64	\$9,843			
	Project	Engineer		26	\$173.51	\$4,511			
Zimmerman C. Cordero	Project	Manager		12	\$236.61	\$2,839		\$150	
D. Mancini	Sr, Computer	Drafter		8	\$119.26	\$954		-	
R. Martinez	Staff	Engineer		88	\$108.60	\$9,556			
D. Punia	Staff	Engineer		100	\$107.74	\$10,774			
E. Pfeifer	Senior	Engineer		156	\$151.33	\$23,608			
M. Thomas R. Sanguinetti E. Pfeifer	Engineering	Manager		190	\$176.11	\$33,461			
M. Thomas R	Principal E			18	\$290.69	\$5,232		\$800	
			Fotal Services	Total Hours	Hourly Rate	Subtotal Budget	Reimbursable Costs	Preproduction, Shipping, Mileage and SCUBA Gear	FOTAL SERVICES

Notes: The rates provided above are fully burdened, including labor burden, overhead and profit. The billing will be done based on the actual rates for the individuals who work on the project, at the time they perform their work, and not the arerage rates shown.

PHASE 2 (OPTIONAL): ENVIRONMENTAL SERVICES

	Biggs Car	Biggs Cardosa Associates, Inc.	iates, Inc.			2	W. G. Zimmerman	irman	U	GPA Consulting	ting							
	M. Thomas	M. Thomas R. Sanguinetti E. Pfeifer		D. Punia	R. Martinez	Aartinez D. Mancini	Zimmerman C	Zimmerman C. Cordero M. Brust R. Galvin M. Schrader	M. Brust	R. Galvin E	A. Schrader	E. Silva S. Glowacki	S. Glowacki	J.Vu	J. Morrison	J. Morrison A. Shippey	K. Warner	Total
Task	Principal	Engineering	Senior	Staff	Staff	Sr, Computer	Project	Project A	Associated Pr	incipal Env. S	Principal Env. Senior Assoc. Senior Env.	Senior Env.	Senior	Associate	Associate	Biologist	Associate	Hours
		Manager	Manager Engineer	Engineer	Engineer	Drafter	Manager	Engineer	Engineer	Planner	Planner	Planner	Biologist	Biologist	Biologist		Biologist	
(Optional) Environmental Services																		
2.5 (Optional) Environmental Permitting		9									8	12	24		32			82
Subtotal Hours	urs G	9 (0	0	0	0	0	0	0	0	8	12	24	0	32	0	0	82
Hourly Rate	tate \$290.69	\$176.11	\$151.33	\$107.74	\$108.60	\$119.26	\$236.61	\$173.51	\$94.64	\$207.36	\$152.96	\$131.12	\$129.76	\$92.18	\$73.85	\$91.74	\$92.74	
Subtotal Budget	'get \$0	31,057	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,224	\$1,573	\$3,114	\$0	\$2,363	\$0	\$0	\$9,331
Reimbursable Costs																		
Preproduction, Shipping and Mileage																		\$0
TOTAL (OPTIONAL): ENVIRONMENTAL SERVICES	ES																	\$9,331

Notes: The rates provided above are fully burdened, including labor burden, overhead and profit. The billing will be done based on the actual rates for the individuals who work on the project, at the time they perform their work, and not the average rates shown.