

AMENDMENT NO. 1

TO

AGREEMENT FOR ENGINEERING CONSULTING SERVICES  
RIVER GROVE DRIVE OVER ESTRELLA RIVER  
BRIDGE REPLACEMENT  
CONTRACT NO. 300382  
FEDERAL PROJECT NO. BRLO-5949(119)

This Amendment No. 1 executed this \_\_\_\_\_ day of \_\_\_\_\_, 2013, to the AGREEMENT made by and between the COUNTY OF SAN LUIS OBISPO ("COUNTY") and Quincy Engineering, Inc., ("ENGINEER") on January 25, 2011, hereby amends said agreement as follows:

1. Under Article 1, "Scope of Work," in addition to the work in the original contract, the ENGINEER shall perform additional work outlined in the attached "Exhibit A"
2. Under Article 3, "Payment for Services: A. Compensation," the contract "not to exceed" sum shall be increased from \$578,300.00 to \$665,210.00.
3. Under paragraph A.1 of Article 3, "Payment for Services," the contract "not to exceed" sum shall be increased from \$578,300.00 to \$665,210.00.
4. Under paragraph A.3 of Article 3, "Payment for Services," the fixed fee shall be increased from \$32,667.58 to \$40,351.20.
5. The effective date of the Amendment No. 1 is immediately upon complete execution by all of the parties.
6. All other terms and conditions of said Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, this AGREEMENT is hereby amended by the parties hereto, upon the date shown sign by the County of San Luis Obispo.

COUNTY OF SAN LUIS OBISPO

\_\_\_\_\_  
Chairperson of the Board of Supervisors  
of the County of San Luis Obispo

Date: \_\_\_\_\_

ATTEST:

County Clerk and Ex-officio Clerk  
of the Board of Supervisors of the  
County of San Luis Obispo

By: \_\_\_\_\_  
Deputy Clerk

Date: \_\_\_\_\_

Quincy Engineering, Inc.

By: John Quincy

Title: President

Date: 7/24/13

APPROVED AS TO FORM AND LEGAL EFFECT:

RITA L. NEAL  
County Counsel

By: Rita L. Neal  
Deputy County Counsel

Date: 7/10/13

# Scope of Work



The original scope for this project involved professional services for the preparation of a complete PS&E package and optional environmental services for the replacement of the **Estrella River Bridge on River Grove Drive in Whitley Gardens**. Due to numerous factors including changes to the existing traffic circulation and the recent reclassification of this structure as a historic bridge, the project will now be re-scoped as a bridge rehabilitation project.

The County has requested a scope of work and fee to advance the project through the feasibility study and to the completion of the project report phase. Following approval of the project report by Caltrans, the extent of the rehabilitation will be more quantifiable, and another scope and fee will be prepared in order to complete the PS&E and environmental approvals for a bridge rehabilitation project.

This scope of work will involve a feasibility study which will include seismic assessment and bridge loading evaluation of the existing bridge. Since no As-built plans are currently available, QEI will measure the member sizes, length and orientation of the existing truss in order to perform this feasibility study. QEI will then calculate the demands and capacities of the existing bridge and determine the vulnerabilities. QEI will make recommendations for strengthening and rehabilitation to address the vulnerabilities which include service load, scour and seismic and then summarize the findings in a project report.

## Task 1 Project Management

The QEI Project Manager, Mark Reno, will be the single point of contact for the County's Manager on this project. He will coordinate and resolve all project and contractual issues during the life of the project. In addition, he will supervise, coordinate and monitor the design for conformance with the site requirements and with Caltrans and County standards and policies.

QEI will also prepare and submit monthly progress reports along with our monthly invoices for County review. These reports will include progress-to-date, schedule updates, County action items, QEI action items, work product deliveries; problems encountered, along with suggested solutions, and anticipated work for the next month.

All correspondence and memos pertaining to the project will be circulated and filed as appropriate. As a means of efficiency, our Team also utilizes the latest communication technology. Electronic copies of reports and plans can be forwarded from QEI to the County via e-mail or through our FTP site.

QEI has assumed one meeting in the County offices, and one rehabilitation/seismic strategy meeting at Caltrans local assistance in Sacramento to complete this scope of work. The project manager and project engineer will attend the meetings.

## Task 2 Truss Field Measurement

No As-built plans are currently available to determine the truss member size, length, and orientation for the service and seismic analysis. QEI will take field measurements and catalogue any data required to complete the analysis with the exception of the abutments, where foundation condition will have to be assumed. QEI will rent a man lift which will be required in order to access members too high above the deck to measure by hand. QEI plans to field measure the lower chord members utilizing a conventional ladder placed in the riverbed below the bridge. QEI has assumed that two QEI staff members will be able to make all field measurements in two days. The County may be required to provide traffic control during this operation.

## Task 3 Caltrans Coordination

Several key decisions need to be made regarding what level of service vehicle is required on the rehabilitated structure. QEI will work with the County and Caltrans to determine an appropriate live load vehicle to be used for the service vehicle load criteria. Reduced loading by converting the structure to a single lane bridge, and replacing the existing deck with a lighter deck are ways that could be utilized to allow for heavier live load vehicles without having to replace main truss members. QEI will take this into account during the strategy phase. QEI will work with the County to set the hierarchy of the design criteria prior to the evaluation.

## Task 4 Service Load and Seismic Assessment

QEI will build a model in SAP utilizing field measurement obtained in Task 2. QEI will analyze the demands on the existing truss system imparted by the design ARS curve provided by FUGRO in the previously prepared preliminary foundation report. QEI will also assess the service load demands in addition to the seismic demands. These demands will then be compared to the capacity in order to determine if the existing truss has any vulnerability.



# Scope of Work

In addition to analyzing all the truss main members, QEI will analyze up to two typical connections that are representative of others in the truss. Analyzing each connection is very cumbersome, and most connections have similar vulnerabilities relative to each other. QEI has successfully used this approach on other projects to reduce costs without compromising the quality of the results.

## Task 5 Rehabilitation Strategy

Once the service load and seismic analysis is complete, QEI will assess all vulnerabilities discovered during the analysis and determine the most cost effective rehabilitation strategy. Rehabilitation measures could include deck replacement, painting, member strengthening or replacement, wooden pedestrian walkway removal, and modifications of floorbeams to prevent future cracking and possible crack propagation. QEI will attend a rehabilitation/strategy meeting at Caltrans Local Assistance to obtain concurrence on the proposed strategy.

## Task 6 Advanced Planning Studies

QEI will produce a planning study general plan depicting the proposed rehabilitations identified in the feasibility study. QEI will also include the approximate estimate construction cost required for the proposed rehabilitation.

## Task 7 Project Report

QEI will summarize the results of the preliminary engineering. Other project issues such as constructability, utilities, contractor access, and staging areas will also be discussed in the project report. QEI will make recommendations for the appropriate rehabilitation, and also assign preliminary costs for programming purposes. The Project Report will serve as the decision document for moving forward with final design. Much of the criteria and impacts outlined in the project report can be used to refine the project description and kick-off environmental technical studies.



**EXHIBIT A  
Cost Proposal**

Project Number: S13-900		Project Name: San Luis Obispo County - River Grove Bridge Rehabilitation																
TASKS	Principal Eng.	Project Manager	Project Engineer (Roadway)	Project Engineer (Bridges)	Design Engineer (Bridges)	Design Engineer (Bridges)	Structural Steel Specialist	Design Engineer (Roadway)	Dist./Spec./Estimator	CAD Operator	QA/QC Engineer	Admin	Quincy Total Hours	Fugro West, Inc.	McMillan Land Surveys	SWCA Environmental Consultants, Inc.	WRECO	Subconsultant Subtotal
	SM	MR	KG															
No.	Initial Hourly Rate	\$72.19	\$72.19	\$60.24	\$85.00	\$90.00	\$38.00	\$65.00	\$35.14	\$60.24	\$26.26	\$72.19	\$30.00					
1	Project Management		24		8								32					\$0
2	Truss Field Measurements				24	24							48					\$0
3	Caltrans Coordination		12		8								210					\$0
4	Service Load and Seismic Assessment		8		16	40	120	24					172					\$0
5	Rehabilitation Strategy		8		20	80	40	24					68					\$0
6	Advance Planning Studies		4		8	16				40			68					\$0
7	Project Report		8		24	8					4		44					\$0
													0					\$0
													0					\$0
													0					\$0
	Subtotal- Hours	0	64	0	110	168	160	48	0	0	40	4	594					0
	Other Direct Costs																	0
	Total Cost	\$0.00	\$4,620.16	\$0.00	\$6,050.00	\$8,400.00	\$6,080.00	\$3,120.00	\$0.00	\$0.00	\$1,050.40	\$288.76	\$0.00	\$29,609.32	\$0	\$0	\$0	\$0

## EXHIBIT A Cost Proposal

Project Name: San Luis Obispo County - River Grove Bridge Rehabilitation

Date: 6/20/2013

**Quincy Engineering, Inc.**

Direct Labor:	\$29,609.32
Overhead (1.595):	\$47,226.87
A. Labor Subtotal	\$76,836.19

**Subconsultant Costs:**

Fugro West, Inc.	
McMillian Land Surveys	
SWCA Environmental Consultants, Inc.	
WRECO	
B. Subconsultant Subtotal	\$0.00

**Other Direct Costs:**

Travel	1400 miles @	\$	0.565	\$791.00
Pier Diem/ Hotel	2 days @	\$	150.00	\$300.00
Equipment Rental				\$1,200.00
Delivery	4 @	\$	25.00	\$100.00
Printing: Blue Line				
Vellum				
8 1/2 X 11 Reproduction				
11 X 17 Reproduction				
Mounting Boards for Presentations				
Newsletters (Translation and printing)				
Mailings (6x)				
C. Direct Cost Subtotal:				\$2,391.00

Labor Subtotal A. =	\$76,836.19
Fixed Fee (10.0%):	\$7,683.62
Subconsultant Subtotal B. =	
Direct Cost Subtotal: C. =	\$2,391.00

<b>TOTAL =</b>	<b>\$86,910.80</b>
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Note: Invoices will be based upon actual QEI hourly rates plus overhead plus fixed fee. Subconsultant and Direct Costs will be invoiced at actual cost.