



Supplemental Agreement Number <u>2</u>		Organization and Address BergerABAM Inc. 33301 Ninth Avenue S., Suite 300 Federal Way, WA 98003	
Original Agreement Number N/A		Phone: 206-431-2300	
Project Number CRP 2123		Execution Date 12/18/2012	Completion Date 12/31/2015
Project Title Leudinghaus Bridge No. 87 Replacement		New Maximum Amount Payable \$ 565,258.00	
Description of Work Supplement No. 2 provides additional construction support and inspection services related to the steel truss.			

The Local Agency of Lewis County
desires to supplement the agreement entered into with BergerABAM Inc.
and executed on 12/18/2012 and identified as Agreement No. N/A

All provisions in the basic agreement remain in effect except as expressly modified by this supplement.

The changes to the agreement are described as follows:

I

Section 1, SCOPE OF WORK, is hereby changed to read:

See Exhibit A-1.

II

Section IV, TIME FOR BEGINNING AND COMPLETION, is amended to change the number of calendar days for completion of the work to read: Extend the contract end date to 12/31/15.

III

Section V, PAYMENT, shall be amended as follows:

See Exhibits E-1 and G-1.

as set forth in the attached Exhibit A, and by this reference made a part of this supplement.

If you concur with this supplement and agree to the changes as stated above, please sign in the appropriate spaces below and return to this office for final action.

By: BergerABAM Inc.

By: Lewis County

Consultant Signature

Approving Authority Signature

Date

EXHIBIT A-1 (SUPPLEMENT NO. 2)
SCOPE OF WORK – CONSTRUCTION INSPECTION PLUS DESIGN CONSTRUCTION SUPPORT SERVICES
PROJECT NO. A13.0207

INTRODUCTION

Lewis County has executed Consultant Agreement CRP 2123, with BergerABAM (CONSULTANT) to perform Construction Support and Inspection services related to the steel truss portion of the Leudinghaus Bridge No. 87. This supplements the original scope of work for Task 5 – Construction Support and adds a new Task 6 – Construction Inspection of the steel truss during construction of the Leudinghaus Bridge No. 87 Replacement Project. The County is providing overall construction management and inspection services of all other portions of the project.

TASK 5 – CONSTRUCTION SUPPORT (SUPPLEMENT)

This additional scope of work supplements the original scope of work in Task 5 - Construction Support.

5A. Submittals and 5B. Questions

It is assumed that the bridge elements will be fabricated by a shop that is not listed on the WSDOT Qualified Product's List (QPL). Therefore this scope of work assumes that the shop fabrication of the bridge elements will require a more rigorous level of inspection at the fabrication shop. The hours for this supplement are based on the duration for the fabrication from the contractor's construction schedule. The original scope for review of the steel truss shop drawings assumed tubular steel sections. This supplement includes additional hours for review and inspection of built up steel truss members. This scope also includes additional hours with the assumption that a temporary work platform will be constructed. The original scope assumed that the bridge would have been erected in place. This scope assumes that the truss will be assembled offline and will be launched into place, therefore requiring additional engineering review time for the launching plans. In addition, this scope of work includes hours for evaluating the galvanizing of the steel trusses.

5D. Geotechnical Subconsultant (GeoEngineers) Observations

Due to the contractors slow progress during excavation of the drilled shafts in rock conditions, the County has requested that our the geotechnical engineer, GeoEngineers, be on site for longer than originally planned during the excavation portion of the project. An allowance for these additional hours has been included in this estimate.

TASK 6 - STRUCTURAL INSPECTION SERVICES OF THE STEEL TRUSS

General

1. The CONSULTANT shall review structural contract plans and specifications for inspection requirements; develop preliminary inspection assignments; and attend meetings with the Lewis County, and others.

2. The CONSULTANT will provide their own laptop computers.
3. Materials testing will be provided by the COUNTY.

Structural Inspection Staffing

Under these services, the CONSULTANT will provide staff for the following positions at the construction site. More detailed descriptions of the duties of these staff are described in the following section.

1. Construction Project Manager - The Construction Project Manager will be part time and will be experienced in construction administration and inspection procedures on large WSDOT or FEMA funded projects to oversee structural activities on the project site.
2. Construction Engineer - The CONSULTANT shall provide a part-time construction engineer experienced in FEMA/WSDOT requirements to develop the Record of Materials (ROM) and process all materials submittals for the bridge superstructure. This position may also update the ROM on a weekly basis.
3. Field Inspector - The Field Inspector will assist with inspection of abutments and piers as requested by the COUNTY. This position will be full time for truss assembly. The field inspector will be part time for deck rebar placement, deck pour and bridge painting. The field inspector will coordinate with the construction project manager in scheduling structural inspections.

Job Descriptions for, Duties of, and Prospective Inspection Staff

More detailed job descriptions, duties, and prospective personnel for each of the key positions are described below. For a detailed list of duties, please see Exhibit D1.

Construction Project Manager

Bob Lee - BergerABAM

Position Reports to Lewis County

Job Description: The construction project manager supervises the consultant project team. The construction project manager is responsible for overseeing the field and office staff for the Leudinghaus Bridge No. 87. The construction project manager will work closely with Lewis County to keep the COUNTY informed of the progress of the structural portion of the project in regards to scope, schedule, and budget. The construction project manager will be the main contact for the COUNTY.

It will be the responsibility of this position to ensure that consultant project staff is trained and aware of elements of construction inspection, project documentation, and materials approvals in accordance with the WSDOT Construction Manual, WSDOT Standard Specifications, and Local Agency Guidelines.

A more detailed list of tasks for the construction project manager is listed in Exhibit D1.

Construction Engineer
Shawna Lenn – BergerABAM

Position Reports to Construction Project Manager

The construction engineer will develop and maintain the structural Record of Materials (ROM), process structural RAMS and QPLs and review mix designs for all superstructure materials approvals for the Leudinghaus Bridge. The construction engineer will work in conjunction with the construction project manager to ensure structures materials documentation and testing is completed in accordance with WSDOT Standard Specifications and WSDOT Construction Manual.

A more detailed list of tasks for the construction engineer is listed in Exhibit D1.

Field Inspector
Weston Dalfrey or Michael Niehl – BergerABAM

Position Reports to Construction Project Manager

This position will assume the day-to-day inspection for the activities related to the bridge construction. He will perform all structural inspections assigned to the Leudinghaus Bridge including fabrication and erection for the truss, deck pour and bridge painting.

A more detailed list of tasks for the field inspector is listed in Exhibit D1.

Schedule for Structural Inspection Services

The accompanying fee estimate is based on a contractor's schedule for involvement of the above staff as a fraction of available time in accordance with the current estimated Construction Time Estimate for the project. It is recognized by both parties that this schedule is estimated and that the Contractor's schedule will become the "real" schedule against which staffing plans must be made.

Key assumed milestones in this estimated Construction Time Estimate are as follows.

Notice-to-Proceed Date	7 July 2014
Substantial Completion	26 August 2015
Physical Completion	26 August 2015
Contract Completion	26 September 2015

Budget for Structural Inspection Services
General

It is also recognized that the budget for these services needs to fit within the overall budget for the project, but that the level of services also needs to be sufficient to inspect the project and to provide adequate records to meet WSDOT standards to pass WSDOT audits.

However, it is also recognized by both parties that efforts to provide services under this supplemental agreement can vary considerably from estimates utilized to develop the additional amount payable for this supplemental agreement. Some budget items may cost more and other items may cost less. Budgets for some subconsultants may not be expended and may be used by CONSULTANT and/or other subconsultants. BergerABAM will monitor total costs expended under this supplemental agreement and will notify COUNTY when costs have reached 50 and 75 percent of the additional maximum amount payable authorized under this supplemental agreement. At each cost milestone, CONSULTANT will meet with the COUNTY and will jointly develop an estimated amount to complete the work. If CONSULTANT costs for the remaining work under this agreement are estimated to be higher than the original amount in this supplement, the remaining work above the amount authorized will not be performed without prior written authorization from the COUNTY. Unused budget at the end of the project will remain under the control of the County. This paragraph will also be included in Section XIV, EXTRA WORK, of the Agreement.

Vehicles and Mileage

CONSULTANT field staff shall be compensated for mileage from the permanent duty station (Federal Way Office) to the site. Travel expenses for part-time and temporary inspection services, as well as for project meetings attended by engineer support staff of the CONSULTANT, shall be invoiced on the basis of mileage.

**EXHIBIT E-1 - CONSULTANT FEE DETERMINATION
LEUDINGHAUS BRIDGE NO. 87 REPLACEMENT**

8/29/2014

DIRECT SALARY COSTS (DSC) for BergerABAM

<u>Personnel</u>	<u>Hours</u>		<u>Rate (see note)</u>		<u>Cost</u>
1 Project Manager	98	X	\$73.61	= \$	7,214
1 Construction Project Manager	154	X	\$56.01	= \$	8,626
2 Office Engineer	192	X	\$46.88	= \$	9,001
3 Bridge Engineer	270	X	\$52.64	= \$	14,213
4 Field Inspector	664	X	\$40.00	= \$	26,560
5 Document Control Specialist	0	X	\$27.16	= \$	-
6 Coordinator/Clerical	0	X	\$32.21	= \$	-

BERGER/ABAM Hours, TOTAL	1,378	Subtotal Direct Salary Costs (DSC) = \$	65,613
Overhead (OH)	153.30%	of (DSC + SE) = \$	100,585
Fixed Fee (FF)	30.00%	of (DSC + SE) = \$	19,684
TOTAL SALARY COSTS (DSC + SE + OH + FF) = \$			185,882

DIRECT NONSALARY COSTS (DNSC)

Mileage	8,820	miles @	\$ 0.560	\$	4,939
Per Diem - Truss Erection Only (See Tab)	Est.	40 Days		\$	5,211
Inspector Phone	3	months	\$ 80	\$	240
Misc Supplies	Est.			\$	500

TOTAL REIMBURSABLE EXPENSES (DNSC) = \$ 10,890

TOTAL BERGER/ABAM FEE (DSC + SE + OH + FF + DNSC) = \$ 196,772

SUBCONSULTANTS (Labor & Expenses)

GeoEngineers (Geotechnical Engineering)	\$	11,832
Northwest Hydraulic Consultants (Hydraulic Analysis)	\$	-

TOTAL SUBCONSULTANT FEES = \$ 11,832

ADDITIONAL AUTHORIZED AMOUNT = \$ 208,604

EXHIBIT E-1: ENGR. FEE EST. FOR BRIDGE NO. 87 (LEUDINGHAUS BRIDGE) REPLACEMENT

ENGINEERING MAN-HOUR SUMMARY FOR TASK 1 - PROJECT MANAGEMENT										
TASK DESCRIPTION	Task Number	Constr.			Bridge Engineer	Field Inspector	Deliverables	Totals		
		Project Manager	Project Manager	Engineer						
CONSTRUCTION SUPPORT (SUPPLEMENT)	5	70	16	36	270			392		
Submittals & RFI's	5A									
Structural Steel Shop Drawings		20		16	120		Provide comments and notes.	156		
Steel Truss Erection Methods		8	8	8	60		Provide comments and notes.	84		
Falsework Drawings & Calculations		2		2	8		Provide comments and notes.	12		
Temporary Platform Drawings & Calculations		2		2	6		Provide comments and notes.	10		
Evaluating Galvanizing Steel Truss		12	8	2	20		Provide Executive Summary of Findings	42		
Questions	5B									
Additional RFI's (Assumed 20)		10		6	40		Provide processed RFI's	56		
Structural Consultant Observations (two additional visits)	5C	16			16		Provide report and photo's at each visit.	32		
STRUCTURAL INSPECTION SERVICES	6	28	138	156		664		986		
Develop ROM - Superstructure Only		4	2	24			Submitted ROM to LC on 7/30/2014	30		
Maintain ROM - Superstructure Only (8hrs per week X 8 weeks)		4		64			Submit Final Updated Version at project completion	68		
Materials Approvals - Superstructure Only (RAM, QPL, Mix Designs)		4	8	52			Processed RAM's, QPL's and Mix Designs - ongoing.	64		
Coordination with WSDOT Fabrication Inspection - Coordination of shop drawings for superstructure and fabrication inspector, evaluation of request for MOH and monthly progress reports		4	40			16	Provide any notes of meeting with WSDOT Fabrication. Provide Field Note Record for payment for superstructure MOH on a monthly basis.	60		
Attend Prefabrication Meeting or meetings at Shop			16			8	Provide meeting notes and or forward meeting notes from WSDOT.	24		
3 Shop Progress Visits		2	24			8	Provide report and photo's at each visit.	34		
Shop Trial Assembly - 3 Visits			8			24	Provide report and photo's at each visit.	32		
Substructure Inspection Assistance - Assume 5 site visits		2				40	Provide report and photo's at each visit.	42		
Periodic Site Visits for Erection Platform - Assume 4		2				32	Provide report and photo's at each visit.	34		

EXHIBIT E-1: ENGR. FEE EST. FOR BRIDGE NO. 87 (LEUDINGHAUS BRIDGE) REPLACEMENT

TASK DESCRIPTION	Task	Constr.			Deliverables			Totals
	Number	Project Manager	Constr. Engineer	Bridge Engineer	Field Inspector			
Site Truss Erection - Assume 8 weeks Full Time Inspection per Quigg Schedule Of 7/8/14	2				320	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	322	
Interimant Inspection - Installation of Deck Forms					24	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	24	
Pre Placement - Bottom Mat Inspection					8	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	8	
Pre Placement - Top Mat Inspection					8	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	8	
Bidwell Set Up and Trial Run - Assume 2 Days					16	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	16	
Deck Prepour Meeting at Site					8	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	16	
Deck Pour - Assume 3 days per Quigg schedule of 7/8/14		8			24	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	24	
Attend Prepaint Meeting			8		8	Provide Agenda and compile notes. Submit after meeting.	16	
Prep and Prime Bolted Connections Inspection- Assume 5 days					40	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	40	
Intermediate Coat Inspection					16	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	16	
Intermediate Stripe Coat Inspection					8	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	8	
Top Coat Inspection					16	Provide IDR and photos for each days operations. Provide Field Note Records for monthly progress estimates.	16	

EXHIBIT E-1: ENGR. FEE EST. FOR BRIDGE NO. 87 (LEUDINGHAUS BRIDGE) REPLACEMENT

8/29/2014

TASK DESCRIPTION	Task Number	Constr. Project Manager		Constr. Engineer	Bridge Engineer	Field Inspector	Deliverables	Totals
		Project Manager	Constr. Engineer					
Coordinate With County Inspector For Pay Note Preparation For Bridge Items				16		40	Provide Field Note Records Monthly for MOH and Superstructure work.	56
Coordination and Resolution of Construction Issues related to Superstructure	4	24					Provide executive summary of proposed resolution for any project issues. This may include drafting of serial letters or change orders for County review.	28
TOTAL ALL TASKS:	98	154	192	270	664	1,378		

Leudinghaus Bridge No 87 Replacement Project

Work Description	Trips	Mileage		RT Dist. - FW to Site	RT Dist To Fab Shop	Site Local Miles	Miles
		Trips	Trips				
Trips to Fab Shop - Assume Arlington WA		4			150		600
Substructure Inspection Trips	5			180			900
Site Visits for Erection Platform	4			180			720
Truss Erection - 8 weeks Per Quigg Schedule	8			180			1,440
Truss Erection Local Miles			40			30	1,200
Interimant Inspection - installation of Deck Forms	3			180			540
Pre Placement - Bottom Mat Inspection	1			180			180
Pre Placement - Top Mat Inspection	1			180			180
Bidwell Set Up and Trial Run - Assume 2 Days	2			180			360
Deck Prepour Meeting at Site	1			180			180
Deck Pour	3			180			540
Attend Prepaint Meeting	1			180			180
Prep and Prime Bolted Connections - Assume 5 days	5			180			900
Intermediate Coat	2			180			360
Intermediate Stripe	1			180			180
Top Coat	2			180			360
Total Miles							8,820

Description	Per Diem Cost	
	Daily Rate	
Motel - Holiday Inn Express Chehalis	\$125	(4 nights / week)
Meals	\$30	(5 days / week)
Total Motel Cost	\$4,011	
Total Meal Cost	\$1,200	
Total Per Diem Cost	\$5,211	

BUDGET ESTIMATE FOR GEOENGINEERS, INC.
Leudinghaus Bridge No. 87 Replacement -- Budget Amendment August 29, 2014
Estimate of Costs by Task & Staff Member

Task	Description	Principal	Senior PM1	Project Engineer 2	Staff Eng2	Senior Tech	Admin 3	Total Hours	Total Direct Labor Cost
5	Construction Support - Shaft Installation								
5D	Additional Site Visits		8		72			80	\$2,504
5D	Additional Geotech Engineering Support	2	8		6		2	18	\$722
Total Hours		0	2	16	0	78	0	2	98
Current Hourly Rates		\$0.00	\$67.31	\$44.74	\$38.00	\$29.81	\$29.33	\$25.53	
Direct Salary Cost (DSC)		\$0	\$135	\$716	\$0	\$2,325	\$0	\$51	\$3,227
##### = Overhead Cost (% of DSC)		\$0	\$301	\$1,601	\$0	\$5,200	\$0	\$114	\$7,216
30% = Fee (% of DSC)		\$0	\$40	\$215	\$0	\$698	\$0	\$15	\$968
Fully Burdened Rate		\$0	\$476	\$2,531	\$0	\$8,223	\$0	\$181	\$11,411
Subtotal Burdened Labor Cost		\$0	\$476	\$2,531	\$0	\$8,223	\$0	\$181	\$11,411
Task	Direct Expenses								
	Vehicle (\$0.555 per mile)	308							\$171
Subtotal Direct and Subconsultant/Subcontractor Expenses									\$421
Total Project Cost									\$11,832

Note: