

Snohomish County Standard Consultant Agreement Supplement		Consultant/Address/Telephone BergerABAM Inc. 33301 Ninth Avenue South, Suite 300 Federal Way, WA 98003	
Supplement Number Supplement No.9		Contact Name / E-Mail Address Robert L. Fernandes / bob.fernandes@abam.com	
Agreement Number CCF07-13		Telephone 206-357-5616	Fax 206-357-5601
Project Title Structural Engineering, Geotechnical Design, Survey and Mapping Services for the Index Galena Road (MP 6.4 – 6.9) Flood Repair Project		Execution Date <i>August 8, 2013</i>	Completion Date <i>December 31, 2019</i>
Description of Work <i>Provide Structural Engineering, Geotechnical Design, Survey and Mapping Services for the Index Galena Road (MP 6.4 – 6.9) Flood Repair Project. The Index-Galena Road is located along the Skykomish River in the Mount Baker – Snoqualmie National Forest in southeast Snohomish County. During Fall 2006 it was severely damaged by flooding and was washed out between mile posts 6.4 and 6.9.</i>		New Maximum Amount Payable \$2,762,026.00	

WHEREAS, Snohomish County desires to supplement the Agreement entered into with **BergerABAM Inc.** and executed on the 8th day of August, 2013, as amended by Supplement No.1 on the 13th day of May, 2014, Supplement No.2 on the 24th day of February, 2015, Supplement No.3 on the 21st day of October, 2015, Supplement No.4 on the 17th day of December, 2015, Supplement No.5 on the 28th day of April, 2016, Supplement No.6 on the 27th day of July, 2016, Supplement No.7 on the 2nd day of November, 2016, and Supplement No.8 on the 26th day of September, 2017, and identified as Agreement No. **CCF07-13**. All provision of the basic agreement remain in effect except as expressly modified by this supplement.

The changes to this Agreement are described as follows:

1. The "Completion Date" on the Agreement title page is amended as follows:

Completion Date (~~December 31, 2018~~) December 31, 2019

2. The "Total Amount Authorized" amount on the Agreement title page is amended as follows:

Total Amount Authorized (~~\$2,585,124.00~~) \$2,733,405.00

3. The "Maximum Amount Payable" amount on the Agreement title page is amended as follows:

Maximum Amount Payable (~~\$2,613,745.00~~) \$2,762,026.00

4. Section **II Scope of Work**, is hereby amended to read:

The Scope of Work and projected level of effort required for this PROJECT is detailed in Exhibit "A" comprised of Exhibit A-1, Exhibit A-1a, Exhibit A-1b, Exhibit A-1c, Exhibit A-1d, Exhibit A-1e, Exhibit A-1f and Exhibit A-1g attached hereto and by this reference made a part of the AGREEMENT.

5. The first and second paragraphs of section **IV Sub-Contracting**, are hereby amended to read:

The COUNTY permits sub-contracts for those items of work as shown in Exhibit "G" comprised of Exhibit G, Exhibit Ga, Exhibit Gb, Exhibit Gc, Exhibit Gd, and Exhibit Ge, attached hereto, and by reference made a part of the AGREEMENT.

Compensation for this sub-consultant work shall be based on the cost factors shown on Exhibit "G-1", Exhibit "G-1a", Exhibit "G-1b", Exhibit "G-1c", Exhibit "G-1d", Exhibit "G-1e" and Exhibit "G-2".

- 6. **EXHIBIT A-1g Supplemental Scope of Work**, attached hereto is added to and incorporated into the Agreement.
- 7. **EXHIBIT E-1g Supplemental Consultant Fee Determination – Budget**, attached hereto is added to and incorporated into the Agreement.
- 8. **EXHIBIT G-1 Supplemental Subcontracted Work**, attached hereto is added to and incorporated into the Agreement.
- 9. **EXHIBIT G-1e Supplemental Subconsultant Fee Determination – Budget**, attached hereto is added to and incorporated into the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Supplement No.9 on this 20th day of JUNE, 2018.

SNOHOMISH COUNTY

Ken Klein
Signature

KEN KLEIN
Executive Director
Title

BERGERABAM INC.

Paul Hanna
Signature

VICE PRESIDENT
Title

**CONTRACT TEMPLATE ONLY
REVIEWED AND APPROVED:**
Rebecca J. Guadamud
Deputy Prosecuting Attorney
Date: 11/26/14

COUNCIL USE ONLY	
Approved:	<u>6-20-18</u>
Docfile:	<u>D-14</u>

**CONTRACT TEMPLATE ONLY
REVIEWED AND APPROVED:**
Keith Mitchell
County Risk Manager
Date: 12/5/14

EXHIBIT A-1g Supplemental Scope of Work

PROJECT DESCRIPTION

The COUNTY desires to restore the roadway connection of the Index-Galena Road between project design Mileposts 6.088 and 7.032 by constructing a new roadway realigned to the south and east of the original roadway which was damaged during flooding of the North Fork of the Skykomish River in November of 2006.

The design phase of the project is nearing completion and there is some additional effort remaining due to an increase in the scope of work for existing tasks and the addition of new work items for existing tasks that were not previously scoped.

SUPPLEMENTAL SERVICES

The purpose of these supplemental services is to complete the Plans, Specifications, and Estimates (PS&E) for design of the project through the Ad-Ready Submittal and to provide support during bidding of the project for construction.

This supplemental scope of work includes the following new tasks:

- Task 25 - Project Management
- Task 27 - Geotechnical Engineering
- Task 31 - Civil/Roadway Engineering
- Task 32 - Structural Engineering
- Task 33 - PS&E Submittals
- Task 35 - Quality Assurance / Quality Control
- Task 36 - Support During Bidding

ESTIMATED LEVEL OF EFFORT

The estimated level of effort to provide these services is shown in Exhibit E-1g and G1e, and is based upon the following scope of work, assumptions, and task descriptions.

SCHEDULE

The current target for advertisement for bidding is October of 2018 to allow for construction to begin in early spring of 2019. The project schedule is dependent on completion of the PS&E, environmental permit approvals, and right-of-way processes, and milestones for deliverables of this scope will be developed in consultation with the COUNTY.

This scope of work assumes that the project design to date, which is approximately 95 percent complete, will be finalized during this last phase of design services, without any major changes to the project design and associated construction documents that would appreciably change the current completion, direction, and/or schedule.

TASK 25 PROJECT MANAGEMENT

The CONSULTANT will provide additional project administration, management and coordination associated with the extended timeframe for completion of the project design and bidding phases. Supplemental hours for project management services for Tasks 25.1 - 25.4 are identified in the associated estimate, Exhibit E-1g.

TASK 27 GEOTECHNICAL ENGINEERING (SUBCONSULTANT)

Shannon & Wilson, Inc. (SUBCONSULTANT), under a subconsultant agreement with the CONSULTANT, will provide the following supplemental geotechnical engineering services.

Task 27.1 Project Management

The SUBCONSULTANT will provide additional project management services for geotechnical engineering tasks associated with the extended project schedule for the design and bidding phases. These services include invoicing, scheduling of work, communications with the CONSULTANT and the COUNTY, QA/QC, and progress meetings / phone conferences participation. The estimated level of effort to provide these services is shown in Exhibit G-1e.

Task 27.4 Geotechnical Support During Bidding

The SUBCONSULTANT will provide additional geotechnical engineering support during bidding to include an expected increase in questions and clarifications from prospective bidders regarding construction activities associated with rock material present on the site including rock blasting and excavation, removal of large boulders, reuse of on-site rock material, and other rock removal and material use related items.

TASK 31 CIVIL/ROADWAY ENGINEERING

The CONSULTANT will provide Civil/Roadway services for an additional set of roadway cross sections to accompany the additional project submittal as described for Task 33, PS&E Submittals. Assembly and submittal of a civil/roadway design calculations package will be provided.

DELIVERABLES

- Roadway Cross-Sections for additional PS&E submittal
- Civil/Roadway design calculations package.

TASK 32 STRUCTURAL ENGINEERING

Task 32.1 Bridge Design and Drawings

The CONSULTANT will provide additional structural calculations and detailing checks of the redesigned field splices for the bridge steel plate girders for the remaining PS&E submittals. The field splice location was changed following the 90% submittal review to reduce the maximum length of the steel plate girder sections for the bridge superstructure to better accommodate transportation of these pieces to the project site for construction.

Services will be provided for assembly and submittal of a structural design calculations package for the bridge.

DELIVERABLES

- Structural design calculations package for the bridge.

Task 32.2 Project Elements Design and Drawings

The CONSULTANT will provide additional structural calculations and detailing checks of the guardrail system design for the Box Culvert Vented Ford (BCVF) project element for the remaining PS&E submittals. The guardrail used along the roadway in the area at the BCVF is located within the concrete apron extent and is a unique, non-standard railing design. This railing includes a special anchorage detail for the railing posts that is accommodated by discreet concrete post foundations located below the concrete slab of the roadway apron.

Services will be provided for assembly and submittal of a structural design calculations package for the project elements.

DELIVERABLES

- Structural design calculations package for the project elements.

TASK 33 PS&E SUBMITTALS

The CONSULTANT will provide additional effort for preparation of submittals to complete the project design phase. The additional effort to prepare PS&E is due to the increased number of drawing sheets, specification items, and associated project quantity and cost items in excess of that originally scoped for Supplement No. 7.

Project specifications will be reviewed and updated for consistency with the new 2018 WSDOT Standard Specifications manual which was released in late 2017 following the 95% PS&E Submittal.

Additional PS&E Submittal - One new/additional submittal is included in this effort, and this extra submittal will be the 100% Submittal. The previously completed submittal is now referred to as the 95% Submittal. Based on the increased total number of plan sheets, the estimated effort for finalizing the PS&E for the Ad-Ready submittal is also increased.

Additional Funding Group - As a new service under this task, the CONSULTANT will provide services to separate cost percentages of project features and their associated estimated costs to develop the project construction documents to accommodate two separate project funding sources, or Groups for the construction documents. The splitting of project features and costs will follow guidance provided by the COUNTY according

to understanding of features which contribute to the project as "betterments", or not. The current understanding is that Group 1 will include FHWA Emergency Relief (ER) Program funds, for which project betterments are not eligible for reimbursement, and Group 2 will include the betterment costs of project features not covered by Group 1. Appropriate ER participation percentages will be used to split the plan quantities into the two groups as applicable.

TASK 35 QUALITY ASSURANCE / QUALITY CONTROL

The CONSULTANT will provide additional effort for Quality Assurance/Quality Control due to an increased number of drawing sheets, specification items, and associated project quantity and cost items in excess of that originally scoped for Supplement No. 7. This additional effort includes effort for the remaining PS&E submittals – the new/additional 100% submittal and the final, Ad-Ready submittal, for which the estimated effort has increased.

TASK 36 SUPPORT DURING BIDDING

This existing task is supplemented with additional effort due to the increased number of drawing sheets, specification items, and associated project quantity and cost items in excess of that originally scoped for Supplement No. 7. Increased effort for the additional funding source is also included.

CONSTRUCTION PERIOD SERVICES

Services to be performed during the project construction are not included in this scope of services and may be provided as supplemental services when the project enters the construction phase as agreed upon with the COUNTY.

EXHIBIT E-1g
Supplemental Consultant Fee Determination – Budget

Index-Galena Road MP 6.4 to 6.9 Realignment
Snohomish County - RC 1532 / UPI #06-0150

BergerABAM PERSONNEL

<u>Project Function</u>	<u>Hours</u>		<u>Billing Rate</u>		<u>Cost</u>
1 Engineer VIII/IX - Principal / Officer	140.0	X	\$ 230.00	= \$	32,200
2 Senior Construction Specialist	16.0	X	\$ 186.08	= \$	2,977
3 Engineer VI/VII - Structural Project	154.0	X	\$ 168.30	= \$	25,918
4 Engineer IV - Structural / Civil	272.0	X	\$ 121.99	= \$	33,181
5 Engineer VI - Civil Project	152.0	X	\$ 168.30	= \$	25,582
6 Applications Programmer II	22.0	X	\$ 165.54	= \$	3,642
7 CAD Operator / Designer	88.0	X	\$ 120.72	= \$	10,623
8 Survey Director	0.0	X	\$ -	= \$	-
9 Coordinator / Administration	22.0	X	\$ 117.30	= \$	2,581
BergerABAM Hours, TOTAL	866			Subtotal Personnel Costs = \$	136,704
				Salary Escalation = 0.00%	\$ -
				TOTAL PERSONNEL COSTS = \$	136,704

EXPENSES / DIRECT NONSALARY COSTS (DNCS)

Mileage	400	miles @	\$ 0.535	\$	214
Federal Express / Courier	2	each @	\$ 15.00	\$	30
				TOTAL REIMBURSABLE EXPENSES (DNCS) = \$	244

SUBTOTAL BergerABAM COST = \$ 136,948

SUBCONSULTANTS

Task 26 Sitts & Hill - Survey & Base Mapping	\$	-
Task 27 Shannon & Wilson - Geotechnical Engineering	\$	11,333
Task 28 Shannon & Wilson - Hydraulic Engineering	\$	-
Task 30 Louis Berger Group - Drainage Engineering	\$	-
	SUBTOTAL SUBCONSULTANT COSTS = \$	11,333

ESTIMATED TOTAL SUPPLEMENTAL COST = \$ 148,281

Prepared by: SKJ

Date: 07 May 2018

**Index-Galena Road MP 6.4 to 6.9 Realignment
Snohomish County - RC 1532 / UPI #06-0150**

BergerABAM COST TOTALS by TASK

		<u>Total Hours</u>	<u>Expenses</u>	<u>Personnel Task Totals</u>
Task 25	Project Management	142.0	\$ -	\$ 26,023
Task 26	Survey & Base Mapping	0.0	\$ -	\$ -
Task 29	Permitting Support	0.0	\$ -	\$ -
Task 31	Civil /Roadway Engineering	54.0	\$ -	\$ 8,305
Task 32	Structural Engineering	166.0	\$ -	\$ 22,979
Task 33	PS&E Submittals	322.0	\$ -	\$ 47,419
Task 34	Easement Plans	0.0	\$ -	\$ -
Task 35	Quality Assurance / Quality Control	124.0	\$ -	\$ 23,337
Task 36	Support During Bidding	58.0	\$ -	\$ 8,641
				\$ 136,704

Total BergerABAM Hours	866.0
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Total BergerABAM Expenses	\$ 244.00
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Subtotal Personnel Costs =	\$	136,704
Salary Escalation = 0.00%	\$	-
TOTAL PERSONNEL COSTS =	\$	136,704

DIRECT NONSALARY COSTS (DNSC)

TOTAL REIMBURSABLE EXPENSES (DNSC) = \$ 244

SUBTOTAL BergerABAM COST = \$ 136,948
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SUPPLEMENT NO. 9 - Additional Services		Task Number	Engineer VIII/IX Principal / Officer	Senior Construction Specialist	Engineer VII/VII - Structural Project	Engineer IV - Structural / Civil	Engineer VI - Civil Project	Applications Programmer II	CAD Operator / Designer	Survey Director	Coordinator / Administration	Totals
TASK DESCRIPTION		BILLING RATE ==>	\$ 230.00	\$ 186.08	\$ 168.30	\$ 121.69	\$ 168.30	\$ 165.54	\$ 120.72	\$ -	\$ 117.30	
TASK 25 - PROJECT MANAGEMENT		25	52		36	8	32				14	142
	Project Coordination	25.1	24		16		12				12	64
	Progress Meetings & Conference Calls	25.2	16		8		8					32
	Management of Subconsultants	25.3	8		4		4					16
	Project Demobilization and Restarts	25.4	4		8	8	8				2	30
	Project Close-Out	25.5										
	TASK	25	\$11,960		\$6,059	\$976	\$5,386				\$1,642	\$ 26,023
TASK 27 - GEOTECHNICAL ENGINEERING		27	See Shannon & Wilson Geotech Hours									
TASK 31 - CIVIL /ROADWAY ENGINEERING		31	6				20	4	24			54
	Final Additional Roadway Cross Sections		2				4	2	16			24
	Civil/Roadway Design Calculations Package		4				16	2	8			30
	TASK	31	\$1,380				\$3,386	\$662	\$2,897			\$ 8,305
TASK 32 - STRUCTURAL ENGINEERING		32	10		36	116					4	166
	Bridge Design & Drawings	32.1	4		16	64					2	86
	Final Bridge Design - Girder Splice Location Redesign		2		8	40						50
	Bridge Design Structural Calculations Package		2		8	24					2	36
	Project Elements Design & Drawings	32.2	6		20	52					2	80
	Final Box Culvert Vented Ford Special Guardrail Design		4		12	32						48
	Project Elements Design Structural Calculations Package		2		8	20					2	32
	TASK	32	\$2,300		\$6,059	\$14,151					\$469	\$ 22,979
TASK 33 - PS&E SUBMITTALS		33	28	8	52	132	32	18	50		2	322
	Review / Update Specs for 2018 Standard Specs		2	4	4	16						26
	Additional Funding Group - Betterment Quantities & Costs		2	2	4	24	4		2			38
	Additional 100% Specifications & Special Provisions		4		4	16	8				2	34
	Additional 100% Engineer's Cost Estimate		4	2	8	32	4	2	8			60
	Additional 100% Plan Submittal		4		4	4	4	8	16			40
	100% Comment Review Meeting		8		8							16
	Review and Respond to Final/100% Comments		2		16	32	8	4	16			78
	Ad-Ready Submittal		2		4	8	4	4	8			30
	TASK	33	\$6,440	\$1,489	\$8,752	\$16,103	\$5,386	\$2,980	\$6,036		\$235	\$47,419
TASK 35 - QUALITY ASSURANCE / QUALITY CONTROL		35	40		24		60					124
	TASK	35	\$9,200		\$4,039		\$10,098					\$ 23,337
TASK 36 - SUPPORT DURING BIDDING		36	4	8	8	16	8		14		2	58
	Prebid Meeting Attendance											
	Response to Bidder Inquiries (8 assumed)		1	2	2	4	2		2			13
	Preparation of Bid Addenda (4 assumed)		1	2	2	8	4		8		2	27
	Supplemental Information for Bidders		2	4	2	4	2		4			18
	Site Visit During Bid (1)											
	TASK	36	\$920	\$1,489	\$1,010	\$1,952	\$1,346		\$1,690		\$235	\$ 8,641
BergerABAM TOTAL HOURS =			140	16	154	272	152	22	88		22	866

EXHIBIT Ge
Supplemental Subcontracted Work

The County permits subcontracting for the following portions of the work of this AGREEMENT.

TASK 27 GEOTECHNICAL ENGINEERING (SUBCONSULTANT)

Shannon & Wilson, Inc. (SUBCONSULTANT), under a subconsultant agreement with the CONSULTANT, will provide the following supplemental geotechnical engineering services.

Task 27.1 Project Management

The SUBCONSULTANT will provide additional project management services for geotechnical engineering tasks associated with the extended project schedule for the design and bidding phases. These services include invoicing, scheduling of work, communications with the CONSULTANT and the COUNTY, QA/QC, and progress meetings / phone conferences participation. The estimated level of effort to provide these services is shown in Exhibit G-1e.

Task 27.4 Geotechnical Support During Bidding

The SUBCONSULTANT will provide additional geotechnical engineering support during bidding to include an expected increase in questions and clarifications from prospective bidders regarding construction activities associated with rock material present on the site including rock blasting and excavation, removal of large boulders, reuse of on-site rock material, and other rock removal and material use related items.

EXHIBIT G-1e
Supplemental Subconsultant Fee Determination – Budget

Index-Galena Road MP 6.4 to 6.9 Realignment
Snohomish County - RC 1532 / UPI #06-0150

GEOTECHNICAL ENGINEERING

SHANNON & WILSON PERSONNEL

<u>Position Classification</u>	<u>Hours</u>		<u>Billing Rate</u>		<u>Cost</u>
1 Officer	17.0	X	\$220.47	= \$	3,748
2 Associate	12.0	X	\$175.17	= \$	2,102
3 Senior Tech Staff	23.0	X	\$129.40	= \$	2,976
4 Professional Staff	16.0	X	\$107.17	= \$	1,715
5 Senior Drafter / Tech	4.0	X	\$100.05	= \$	400
6 Drafter / Tech	0.0	X	\$95.86	= \$	-
7 Administrative (Senior)	4.0	X	\$84.36	= \$	337
8 Administrative	0.0	X	\$59.37	= \$	-
Total Hours	76.0			TOTAL PERSONNEL COSTS = \$	11,279

DIRECT NONSALARY COSTS (DNSC)

Mileage	101	miles @	\$ 0.535	\$	54
B&W 8.5x11 Copies	0	copies @	\$ 0.10	\$	-
B&W 11x17 Copies	0	copies @	\$ 0.20	\$	-
Color 8.5x11 Copies	0	copies @	\$ 1.00	\$	-
Color 11x17 Copies	0	copies @	\$ 2.00	\$	-

TOTAL REIMBURSABLE EXPENSES (DNSC) = \$ 54

REQUESTED ADDITIONAL SHANNON & WILSON GEOTECH ENGR FEE = \$ 11,333

TASK 27 - GEOTECHNICAL ENGINEERING	Shannon & Wilson Personnel							
	Officer	Associate	Senior Staff	Professional Staff	Sr. Drafter / Tech	Drafter / Tech	Senior Admin.	Admin
27.1 Project Management / Extended Schedule	5	0	18	0	0	0	0	0
Invoicing & Progress Reports			5					
Scheduling, coordination, work assignments			8					
Quality control / quality assurance	5		5					
27.4 Geotechnical Support During Bidding / Additional	12	12	5	16	4	0	4	0
Prebid Meeting Attendance								
Response to Bidder Inquiries (1 additional assumed)	3	3	3	12	3		2	
Preparation of Bid Addendum (1 additional assumed)	1	1	2	4	1		2	
Site Visit During Bidding (1 assumed)	8	8						
SUBTOTAL S&W GEOTECH HOURS	17	12	23	16	4	0	4	0