

Snohomish County Standard Consultant Agreement Supplement		Consultant/Address/Telephone BergerABAM Inc. 3301 Ninth Avenue South, Suite 300 Federal Way, WA 98003	
Supplement Number Supplement No.5		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, 2016</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 Remains Unchanged at \$1,237,640.00	

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, and Supplement No.4 on the 17th day of December, 2015, and identified as Agreement No. **CCF07-13**, and

WHEREAS, Snohomish County desires to authorize the release of an additional \$24,998 in Management Reserve Funds to compensate for the additional services defined in this supplement. 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 "Total Amount Authorized" amount on the Agreement title page is amended as follows:

Total Amount Authorized ~~(\$1,172,360.00)~~ **\$1,198,358.00**

2. The "Management Reserve Fund" amount on the Agreement title page is amended as follows:

Management Reserve Fund ~~(\$64,280.00)~~ **\$39,282.00**

3. Maximum Amount Payable, on the Agreement title page, shall remain unchanged as payment for the supplemental work will be drawn from the management reserve fund.

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

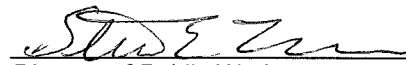
The Scope of Work and projected level of effort required for this PROJECT is detailed in Exhibit "A" comprised of Exhibit A-1, Exhibit A-1a, Exhibit A-1b, Exhibit A-1c, and Exhibit A-1d attached hereto and by this reference made a part of the AGREEMENT.

5. **EXHIBIT A-1d Supplemental Scope of Work**, attached hereto is added to and incorporated into the Agreement.

6. **EXHIBIT E-1d Supplemental Consultant Fee Determination – Budget**, attached hereto is added to and incorporated into the Agreement.

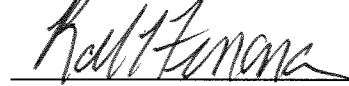
IN WITNESS WHEREOF, the parties hereto have executed this Supplement No.5 on this 28 day of April, 2016.

SNOHOMISH COUNTY



Director of Public Works

BERGERABAM INC.



Signature
VICE PRESIDENT

Title

EXHIBIT A-1d 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 current design phase of the project for a 35 MPH roadway alignment includes studies of selected project elements and design development with working plans and a construction cost estimate.

SUPPLEMENTAL SERVICES

The purpose of these supplemental services is to prepare a preliminary construction schedule for the project. There are many complexities with constructing the Index Galena Road, some of which include work window restrictions, project remoteness, large volume of import materials, and large volume of rock excavation. The CONSULTANT will develop production rates, analyze mobilization and access, placement of construction equipment, and delivery of materials. These will all be taking into consideration when developing the construction schedule.

ESTIMATED LEVEL OF EFFORT

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

SCHEDULE

Based on discussions with the COUNTY, the construction schedule is needed to support permitting and environmental documentation efforts currently being perform by the County. It is expected that the construction schedule effort will begin in the near term and be completed within approximately a 3-4 week period.

TASK 22 (NEW) – CONSTRUCTION SCHEDULE

This is a new task for performance of services by the COUNSULTANT to prepare a preliminary construction schedule for the project. The CONSULTANT will also provide additional project administration, management and coordination associated with these supplemental services including scheduling of work, communications with the COUNTY, and associated QA/QC will be performed.

The CONSULTANT shall develop the construction schedule for the project using Microsoft Project software to prepare the preliminary Critical Path Schedule (CPS) to determine the number of required working days and a proposed order of work for the expected construction activities. The CPS shall consider all construction activities that may impact construction of the project and be based on the current design and included project elements using estimated quantities from the 35 MPH Alignment Cost Estimate developed under Task 19. The construction schedule may include, but not be limited to, procurement time for equipment and materials, detour time constraints, work window restriction, other permit requirements and other construction complexities known at this preliminary stage of development.

Documentation supporting the production rates used and other pertinent schedule information will be provided in a narrative memorandum with appended data/information. Expected information will included telephone conversation memos with contractors, logging companies, and others familiar with construction of remote access roads.

Work breakdown of tasks and activities for the CPS shall be of sufficient detail to capture durations and relationships critical to the schedule and appropriate for this level of preliminary design development. The format of the CPS shall be developed by the CONSULTANT through coordination with the COUNTY.

It is expected that once a baseline CPS has been developed that up to two different alternate schedules will be developed to investigate the following scenarios as a minimum:

1. If the construction can be completed in two construction seasons (vs. three) and identification of the primary associated risks and challenges

2. If the expected rock blasting activity can be performed during one year or part of a year and the associated risks and challenges.

Deliverables

- CPS baseline:
 - Draft Preliminary CPS (electronic copy in .mpp format).
 - Final Preliminary CPS (electronic copy in .mpp format).
- Two additional CPS alternates will be developed as Draft (electronic copy in .mpp format) and finalized as needed.
- Memorandum – Narrative with Schedule Support Documentation, Draft & Final

**EXHIBIT E-1d
Supplemental Consultant Fee Determination – Budget**

EXHIBIT E-1d, PROJECT FEE DETERMINATION
BergerABAM
SUPPLEMENT NO. 5 - CONSTRUCTION SCHEDULE

Total Costs
4/5/2016

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 Officer / Managing Principal	14	X	\$ 224.40	= \$	3,142
2 Senior Construction Specialist	27	X	\$ 168.42	= \$	4,547
3 Project Engineer VI	108	X	\$ 158.10	= \$	17,075
4 Structural Engineer IV	0	X	\$ 131.58	= \$	-
5 Civil Engineer VI	0	X	\$ 158.10	= \$	-
6 Applications Programmer II	0	X	\$ 151.26	= \$	-
7 Coordinator /Administration	2	X	\$ 116.96	= \$	234
BergerABAM Hours, TOTAL	151			Subtotal Personnel Costs = \$	24,998
				Salary Escalation for FY 2017 at = 0.00%	\$ -
				TOTAL PERSONNEL COSTS = \$	24,998

OTHER DIRECT COSTS (ODC)

Mileage	-	miles @	0.54	\$	-
				\$	-
				TOTAL REIMBURSABLE EXPENSES (ODC) = \$	-

TOTAL BergerABAM FEE = \$ 24,998

SUBCONSULTANTS

	\$	-
	\$	-
	\$	-
	TOTAL SUBCONSULTANT FEES = \$	-

TOTAL SUPPLEMENT AMOUNT = \$ 24,998

MANAGEMENT RESERVE

	\$	-
	\$	-

Prepared by: SKJ
Date: 05 APRIL 2016

TASK DESCRIPTION	Task Number	Officer / Managing Principal	Senior Construction Specialist	Project Engineer VI	Structural Engineer	Civil Engineer VI	Civil / Roadway & Geometry - Appl. Programmer II	Coordinator / Administration	Totals
		BILLING RATE ==>	\$ 224.48	\$ 188.42	\$ 188.10	\$ 131.58	\$ 158.10	\$ 151.28	
TASK 22 - CONSTRUCTION SCHEDULE	22	14	27	108				2	151
Project Administration, Management & QA/QC		4	2					2	8
Project Review/ Research/ Develop Production Rates		4	12	48					64
Develop Draft Preliminary Critical Path Schedule / Baseline			2	16					18
Respond to Comments		1	2	4					7
Develop Final Preliminary Critical Path Schedule / Baseline		1	2	8					11
Draft/Final Critical Path Schedule / Alternate 1		1	2	8					11
Draft/Final Critical Path Schedule / Alternate 2		1	2	8					11
Draft Memo - Schedule Support Documentation		1	2	12					15
Final Memo - Schedule Support Documentation		1	1	4					6
		\$3,142	\$4,547	\$17,075				\$234	\$24,998
BergerABAM TOTAL HOURS =		14	27	108				2	151

Notes:

- 1.
- 2.