

PA-10-WA-4253-PW-00095(0) **P**

Applicant Name:

CAMAS

Application Title:

056S534 Lacamas Lane Slide Repair - Cat B

Period of Performance Start:

02-02-2016

Period of Performance End:

08-02-2016

Bundle Reference # (Amendment #)

Date Awarded

Subgrant Application - FEMA Form 90-91**Note:** The Effective Cost Share for this application is 75%

FEDERAL EMERGENCY MANAGEMENT AGENCY PROJECT WORKSHEET						
DISASTER			PROJECT NO.	PA ID NO.	DATE	CATEGORY
FEMA	4253	- DR -WA	056S534	011-09480-00	09-21-2016	B
APPLICANT: CAMAS				WORK COMPLETE AS OF:		
				05-01-2016 : 20 %		
Site 1 of 1						
DAMAGED FACILITY:				COUNTY: Clark		
056S534 Lacamas Lane Slide Repair Cat B						
LOCATION:					LATITUDE:	LONGITUDE:
Current Version: Lacamas Lane west of intersection with NW Lake Road.					45.60584	-122.41545
Approximate GPS: 45.60584; -122.41545						
DUNS #10-302-1895						
DAMAGE DESCRIPTION AND DIMENSIONS:						
<p>Current Version:</p> <p>As a result of the severe winter storm, straight-line winds, flooding, landslides, mudslides, and a tornado during the incident period of December 1 through December 14, 2015 damages were sustained throughout several counties in the state of Washington. In response to the high winds and heavy rain, City of Camas (Applicant) staff responded to reports of a landslide on an uphill side-slope of Lacamas Lane which closed the roadway due deposition debris on the roadway. Geotechnical consultation determined the debris pile could not be removed safely until the heavy rains stopped. Staff subsequently cleared debris from the roadway and placed 10 concrete 'ecology blocks' at the base of the slide. One city street light was destroyed (no damage to the roadway itself). The roadway was re-opened shortly thereafter.</p> <p>While the slide was temporarily stabilized due to dry weather and the ecology blocks, the slide represents an ongoing, immediate threat to Lacamas Lane and emergency vehicles, pedestrians and the motoring public who use the roadway for accessing several hundred homes. The total mass of the landslide is approximately 150ft L x 120'ft W x average 10ft D/27 = 6667cy. This PW is intended to address emergency protective measures to provide temporary slope stabilization.</p> <p>In accordance with Section 21, page 79 of FEMA's Public Assistance Program and Policy Guide (PAPPG dated January, 2016), eligible emergency protective measures include funding for the "... least costly option necessary to alleviate the threat ... FEMA limits ... measures to the area of the immediate threat, not the entire slope ... eligible emergency protective measures include but are not limited to ... buttressing at the toe of a sliding mass using measures such as ... rock toes ..."</p>						
SCOPE OF WORK:						
Current Version:						
Work Completed:						
Debris removal was completed using force account labor, force account equipment. Ecology blocks were placed to keep additional debris						

off roadway so traffic could resume using the road until slope stabilization measures are completed. Debris removal and placement of concrete blocks were addressed in PW# 55 for the city-wide storm debris removal.

A geologic reconnaissance report was completed that examined the stability of the slope, its soil make-up, and recommending remedial action. In addition, engineering designs were prepared for; 1) the minimum work necessary to alleviate the threat, and 2) a more extensive approach to address stabilization of the entire slope. In accordance with the referenced section of the PAPPG, this PW addresses construction of the "least costly option necessary to alleviate the threat". The Applicant may choose to expand beyond that approach to address more of the entire slope, however any additional work in excess of that outlined in this PW's Scope of Work may not be eligible for FEMA reimbursement.

At the time this PW was written, invoiced consultation services including geotechnical, engineering and environmental/historic permitting amounted to \$86,975.41.

Work to be Completed:

The attached memorandum dated September 2, by Stuart Albright, P. E. states "The proposed solution (a toe buttress) remediates the immediate threat of the toe remobilizing onto the roadway . . . this solution does not . . . stabilize the greater slope which was proposed in the original report. A modest toe buttress with drainage represents the minimum effort that would mitigate the immediate threat and is notably cheaper than . . . other solutions . . ."

The estimated cost for a toe buttress is itemized on the attached "Preliminary Construction Cost Estimate – August 8, 2016, based on Preliminary Plans Date August 5, 2016 (FEMA repair section)". Both the cost estimate and plans are attached. Work involves excavation of 1,900cy of "Unsuitable Foundation" at the toe of the slide (estimate based on an excavated trench having a cross sectional area of 427.5sf x 120ft L = 51,300cf/27cf/cy = 1,900cy), and placement of 4,850tons of Quarry Spalls to provide "high weight, permeability and shear strength" at the toe of the slide. The project also includes installation of 1,600sy of geotextile fabric and approximately 165lf of 10inch dia drain pipe under the quarry spalls, including a connection to existing storm drainage. The estimated cost of construction is \$349,628, construction management by consultant at 15% is \$52,444, and sales tax on Construction at 8.4% is \$29,369.

At the time this PW was completed, Applicant had not provided documentation of their Direct Administrative Cost. An estimated cost of \$1,500 has been included.

Total estimated costs include

Consulting Services invoiced	\$86,975.41
Construction	\$349,628
Construction Management by Consultant	\$52,444
Sales Tax on Construction @ 8.4%	\$29,369
DAC	\$1,500
Total	\$519,961.41

EHP Notes: Excavated Material to be disposed in a suitable facility, and fill material to be obtained from a permitted source. Locations of disposal and borrow sites to be provided when available. Applicant has contacted affected tribes regarding ground disturbance (attached). If previously undisturbed land, outside the Right-of-Way is to be filled or removed, an archeological survey may be required.

RECORD RETENTION: FEMA requires that complete records and cost documents for all approved work be maintained for three years from the date the last project was completed or from the date final payment was received, whichever is later. Washington State requires that records be maintained for six years. Applicant is responsible for retention of all documentation associated with this project.

SUPPORTING DOCUMENTATION: the supporting documentation for this project has been reviewed and verified by the applicant and project specialist for eligibility and correctness.

DIRECT ADMINISTRATIVE COSTS: The sub-recipient (Applicant) requested direct administrative costs that are directly chargeable to this specific project. Associated eligible work is related administration of the PA project only an in accordance with 44 CFR 13.22 These costs are treated consistently and uniformly as direct costs in all federal awards and other subrecipient activities and are not included in any approved indirect costs rates. DAC work activities include create, assemble, review and copy, scan and email: insurance policies, labor agreement, pictures, wage and fringe tables and rates, spreadsheets of employees worked, equipment used and hours used, timesheets and activity logs.

CHANGE IN SCOPE – If there are any changes in the scope of work the applicant needs to contact Gary Urbas prior to the start of work. His contact information is: Washington Military Department, Emergency Management Division, MS: TA-20B, Camp Murray, WA 98430 or phone Gary Urbas at 253-512-7402.

INSURANCE: The applicant is aware that all projects are subject to an insurance review as stated in 44 CFR Sections 206.252 and 206.253. If applicable, an insurance determination will be made either as anticipated proceeds or actual proceeds in accordance with the applicant's insurance policy that may affect the total amount of the project.

Does the Scope of Work change the pre-disaster conditions at the site? ☒ Yes ☐ No

Special Considerations included? ☒ Yes ☐ No

Hazard Mitigation proposal included? ☐ Yes
☒ No

Is there insurance coverage on this facility? ☐ Yes ☒ No

PROJECT COST

ITEM	CODE	NARRATIVE	QUANTITY/UNIT	UNIT PRICE	COST
		*** Version 0 ***			
		Work Completed			
1	9001	Contract	1/LS	\$ 86,975.41	\$ 86,975.41

		Work To Be Completed			
2	9001	Contract	1/LS	\$ 349,628.00	\$ 349,628.00
3	9001	Contract	1/LS	\$ 52,444.00	\$ 52,444.00
4	9999	WA Sales Tax @8.4%	1/LS	\$ 29,369.00	\$ 29,369.00
		Direct Subgrantee Admin Cost			
5	9901	Direct Administrative Costs (Subgrantee)	1/LS	\$ 1,500.00	\$ 1,500.00
				TOTAL COST	\$ 519,916.41
PREPARED BY PATRICK ONEILL			TITLE Project Officer	SIGNATURE	
APPLICANT REP. James Hodges			TITLE Project Manager	SIGNATURE	