


CITY OF COOS BAY CITY COUNCIL
Agenda Staff Report

MEETING DATE April 19, 2016	AGENDA ITEM NUMBER
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TO: Mayor Shoji and City Councilors

FROM: Jim Hossley, Director Public Works 

THROUGH: Rodger Craddock, City Manager

ISSUE: Award Contract for Geotechnical Design and Stabilization Work – Coos River Highway Rehabilitation

BACKGROUND:

The December 2015 storm created infrastructure failure throughout the City, one of those locations is the Coos River Hwy road slide. The City obtained a quote from a firm under contract with ODOT to provide landslide stabilization services. The firm is GEOstabilization International. The City's purchasing rules allow the City to forego its typical procurement process when using firms that have been procured by other government agencies using the typical government purchasing process. The firm has Oregon licensed geotechnical engineers that will prepare the bank stabilization plan for stabilizing the Coos River Highway slide. The firm will also perform the stabilization work.

The City still needs to bid two additional contracts for Coos River Highway repairs. One will be for culvert replacement; the other is for roadbed rebuild and asphalt. The culvert work is expected to be under \$25,000 and will not require Council approval. The culvert project is currently under design. Installation will precede the stabilization work. The contract for the roadbed rebuild and asphalt work is expected to require Council approval. This work will follow the stabilization.

ADVANTAGES:

The embankment stabilization project on Coos River Highway will fix a problem that has existed for decades. Re-open the road back to two lanes of traffic.

DISADVANTAGES:

Other than cost, none

BUDGET IMPLICATIONS:

Surface Transportation Program funds, budgeted in Fund 16 will be used for the stabilization design and construction contract cost. The cost is \$293,172.39 for design, building, and 5-year performance warranty. Staff recommends a \$22,000 contingency. The total cost being \$315,172.39

ACTION REQUESTED:

If it pleases council, award the Coos River Highway slope stabilization design and construction contract to Geostabilization International for a cost not to exceed \$315,172.39.

ATTACHEMENTS:

GSI Report



GeoStabilization International

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www.geostabilization.com

January 25th, 2016

Mr. Jim Hossley, Director
City of Coos Bay
500 Central Avenue
Coos Bay, Oregon

Proposal for Design/Build/Warranty Stabilization of Coos River Road at 12th Avenue

Dear Mr. Hossley:

GeoStabilization International (GSI[®]) is pleased to offer this design/build/warranty proposal to stabilize the landslide on Coos River Road at the intersection with 12th Avenue in Coos Bay, Oregon. GSI personnel performed a site reconnaissance on January 15th, 2016 in preparation of this proposal.

Project Overview

The following proposal outlines a stabilization plan that includes the installation of Self Drilling SuperNails[™] faced with reinforced structural shotcrete for an estimated stabilization length of 140 lineal feet (LF).

Photo illustrating headscarp extending into travel lane.



GEOHAZARD MITIGATION EXPERTS

CORPORATE ADDRESS: PO Box 4709, Grand Junction, CO 81502

BRANCH OFFICES: Arizona, British Columbia, California, Colorado, Kentucky, North Carolina, Ontario, Oregon, Tennessee, Utah, and Virginia

Page 1 of 5

Agenda Item #8

Slope Stabilization Construction Plan

The recommended slope stabilization plan will be completed as a collaborative effort between GSI and City of Coos Bay Maintenance forces. The primary scopes of work for the City of Coos Bay or their subcontractor will consist of excavation to prepare the site for stabilization, traffic control, drainage improvements, and guardrail installation. GSI will provide Self Drilling SuperNail® and shotcrete wall construction. **GSI may subcontract the City of Coos Bay work scope if requested.**

The proposed stabilization plan will consist of the installation of four rows of Self Drilling SuperNails™ up to 50-feet in length. The Self Drilling SuperNails™ will be faced with a structural layer of reinforced shotcrete, up to 14 feet tall, to distribute the nail head loads and create a buttress to stabilize the road surface.

Drainage improvements are also required for successful stabilization of the landslide. The existing cross culvert had water flowing beneath the pipe downslope and has likely separated below the road surface. The culvert will need to be repaired as part of the project and is assumed to be completed by the City of Coos Bay or their subcontractor. The 5-warranty will be voided if the culvert is not repaired. GSI will also install horizontal drains to alleviate the buildup of hydrostatic pressure with the upper failure mass.

Proposed Construction Sequence

All construction equipment will be positioned on the existing asphalt or outboard shoulder. Only foot traffic will be permitted to traverse over and down the slope. The estimated order of tasks is as follows along with an example photo to better illustrate the operation:

1. Minor excavation to remove loose debris and vegetation, and to reduce undulations in the slope face to facilitate shotcrete placement.
2. GSI File Photo showing installation of production Self Drilling SuperNails™ working from road surface. Note one lane open to alternating traffic during construction.



3. GSI File Photo showing placement of flat panel drains and steel reinforcing components and shotcrete application.



4. Below: GSI File Photo showing finished shotcrete wall prior to final cleanup and revegetation.



Resources

Our SuperNailer™ is mounted on a tracked carriage that allows the work to be accomplished from the existing road surface. **We anticipate traffic control during construction to consist of a flagging crew or signage closing one lane during construction with traffic alternating in the opposite lane. The road may be fully open to traffic during off construction hours.** This may require intermittent traffic and/or work stoppage. We have excluded traffic control as part of our scope of work.

Schedule

The proposed scope of work assumes working 10 hours per day, 6 days per week as daylight permits. GSI crews typically are on site for 2 weeks and travel home for 4 days.

Cost

The cost outlined in the following table includes design drawings and calculations sealed by a professional engineer registered in the State of Oregon, all materials and equipment required for installation of the Self Drilling SuperNails™ and shotcrete slope stabilization plan, a 75-year design life and a 5-year performance warranty.

Cost Estimate

Description	Total
Design/Build/Warranty Slope Stabilization (140 LF)	\$293,172.39

***Assumes One Mobilization**

GSI Includes or Excludes the Following Items as Indicated

	Exclude	Include		Exclude	Include
Self Drilling SuperNail™ Supply & Installation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Excavation for Wall	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Water	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Hauling of Spoils	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stamped stabilization plans and calculations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Traffic Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
One (1) Mobilization	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Facing Installation	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Construction Surveying	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Erosion Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Horizontal Drains	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Drainage Improvements	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			Guardrail Installation	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Warranty:

Our proposal includes design and we will supply a P.E. stamped typical section. Our work also carries a five-year warranty commencing after GSI project completion. This warranty is void absent GSI receiving mutually agreed project payment or if the City of Coos Bay or their

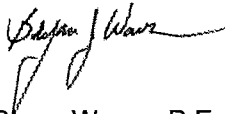


subcontractor does not repair the failed culvert. If at any point within the warranty period the repaired section becomes unstable, GSI will, in a timely manner, remedy the situation with a design/construction solution at no cost to the owner. This warranty does not cover work completed by others or shallow surface erosion problems that may develop in the future. Exceptions to the warranty include catastrophic seismic, weather, or other events outside reasonable accounting in design (including earthquakes and weather events exceeding expectation for the region) or further construction by third parties that destabilizes the repair (including utility trenches dug into or through any soil nails, deep excavations in the area, etc). Extreme storm water volumes may cause erosion, which could undermine the repaired areas which may void this warranty. After such an event these areas should be checked for erosion.

This proposal is contingent on the fact that the slide does not move significantly prior to our mobilization. If significant movement occurs we should be contacted to potentially modify the scope of this proposal.

This offer expires 30 days from the date transmitted. GeoStabilization International is confident that we can construct a quality stabilization system in an efficient manner. This proposal is conditional upon entering a mutually acceptable contract between GeoStabilization International and City of Coos Bay.

Sincerely,
GeoStabilization International



Bryan Wavra, P.E.
NW Project Development Engineer
503-999-4187
bryan@gsi.us

Acceptance: _____
Name/Title Date

