

January 10th, 2022 – REV 01

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Subject: Proposal for Old Tuckaleechee Road Slide Repair – Blount County, TN
GeoStabilization International - Vendor ID: 0000160610
TDOT Contract Number: 0000000000000000000066906
Title: SWC 191 - Slope Stabilization Services

Chico Messer:

GeoStabilization International® (GSI) is pleased to offer this revised proposal to provide permanent slope stabilization for the road platform located along Old Tuckaleechee Road in Blount County, TN for the Blount County Highway Department (BCHD). The slide area is located at GPS Coordinate: 35.681490, -83.790810 (Figure 1).

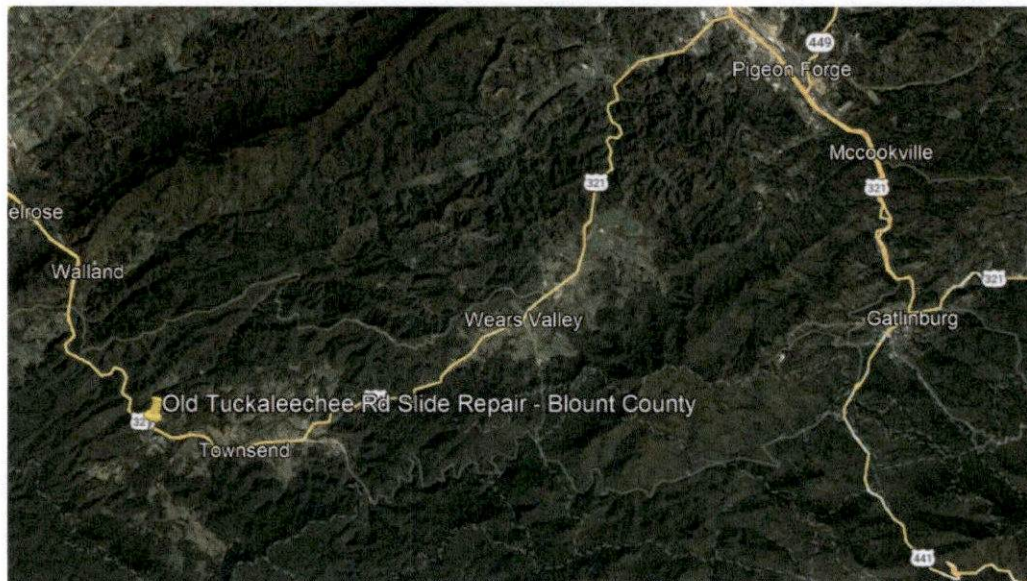


Figure 1 – Approximate location of project

PROJECT OVERVIEW

This proposal addresses installing a combination of Self-Drilling Soil Nails, Horizontal Drains, Y-Wall Construction, Shotcrete and Shoulder Build-Up to provide stabilization for the slide area affecting Old Tuckaleechee Road in Blount County, TN. GSI visited the site on January 9, 2023 and since last visiting the site in August of 2022, conditions have extended past the original repair length of 165 LF to a new repair length of 310 LF.



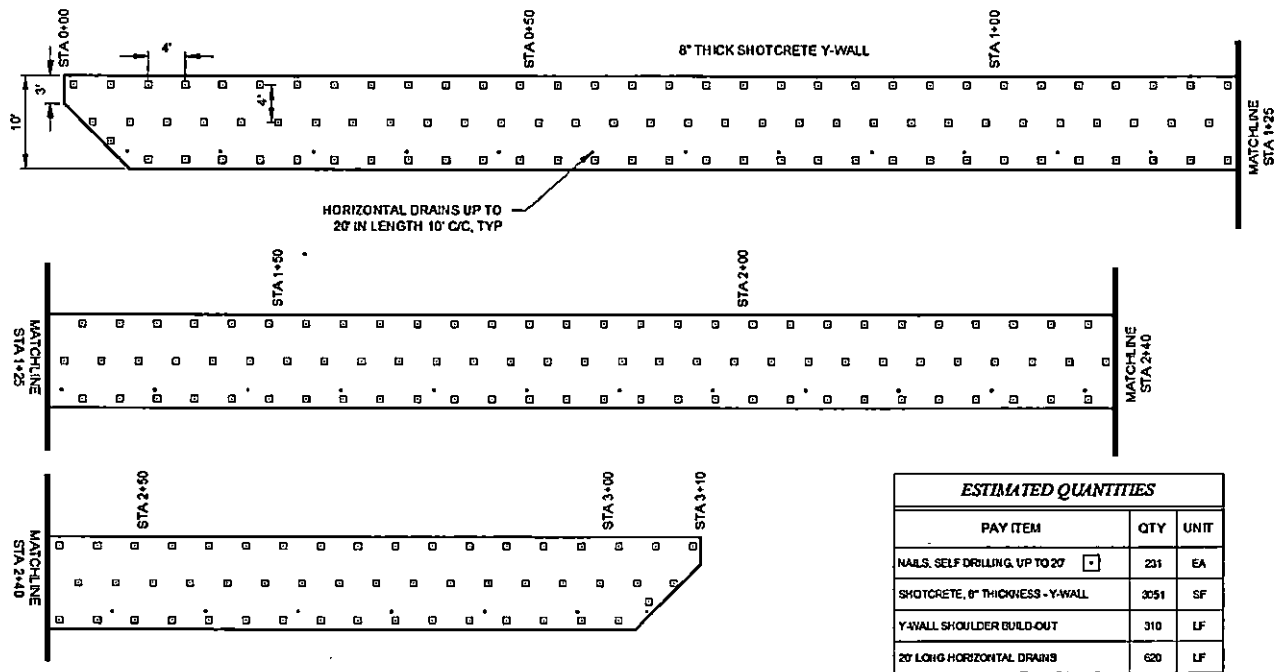
Figure 2 – Conditions along Old Tuckaleechee Road in August 2022



Figure 3 – Existing conditions along Old Tuckaleechee Road as of January 2023, past the end of the August 2022 repair

SLIDE REPAIR

BCHD or a BCHD approved excavation contractor shall prepare the slope by excavating and steepening the face of the existing slope to an approximate 0.5H:1V slope or steeper. The excavation shall be performed in multiple 4–5-foot lifts from the roadway platform. GSI will then install Horizontal Self-Drilling Nails, up to 20-feet long into the excavated face to construct our typical Y-Wall soil nail wall, which will have a height of 10 feet. We will leave the nail ends protruding through the soil and cover the repair with 8-inch-thick steel reinforced shotcrete. Shoulder Build-Up will also be installed for the entire length of the repair. Adding Shoulder Build-Up to a soil nail and shotcrete repair is what constitutes a “Y-Wall”. We will install horizontal drains on an approximate 10-foot center spacing and as necessary to control ground water along the entire length of the repair.



(A) TYPICAL PROFILE
SCALE: 1":10'

Figure 4 – Profile view of slope stabilization

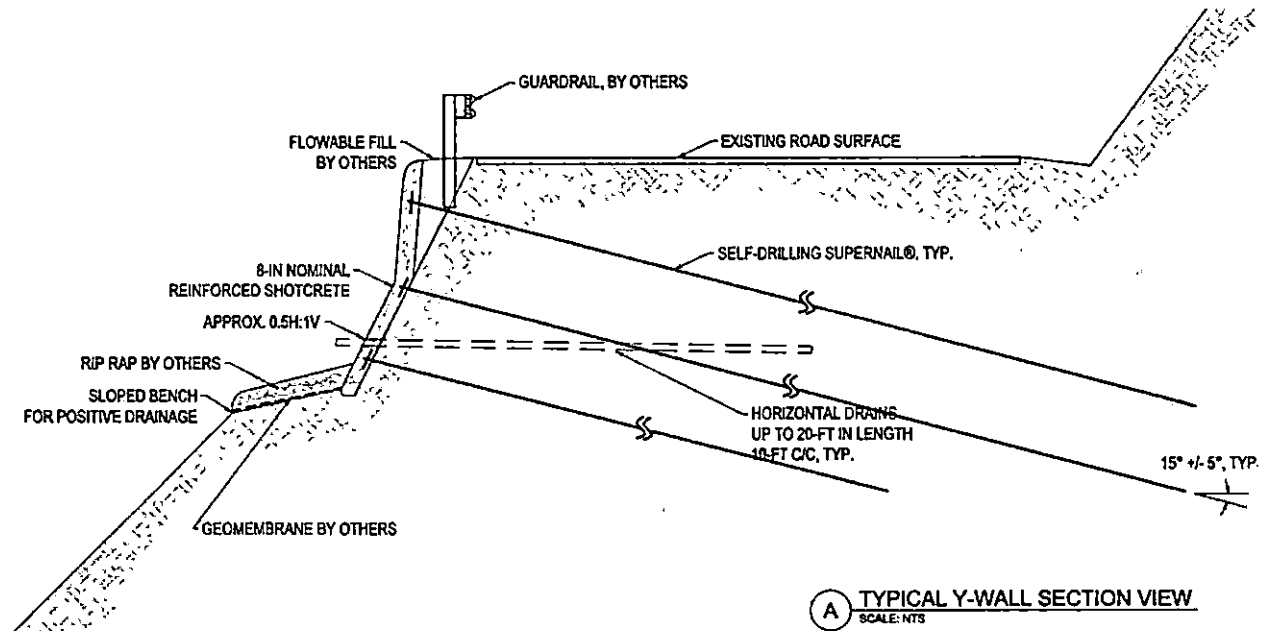


Figure 5 - Cross-Section of proposed slope stabilization
(For illustration purposes only, nails may vary in length from what is shown above)

COST TABLE FOR OLD TUCKALEECHEE ROAD SLIDE REPAIR

Line #	Description	~ Qty	Unit	Unit Price	Total
17	Mobilization	1	LS	\$ 11,580.00	\$ 11,580.00
1	Nails, Self-Drilling Soil, up to 20 ft	231	EA	\$ 722.00	\$ 110,466.00
16	Shoulder Build-up, Road Service	310	LF	\$ 155.00	\$ 48,050.00
19	Shotcrete, Nominal 8-in Thickness	3051	SF	\$ 38.50	\$ 117,463.50
40	Soil Nail Proof and Verification Testing		EA	\$ 750.00	\$ -
53	Horizontal Drains, 0 to 50 ft	620	LF	\$ 35.50	\$ 22,010.00
	Total				\$ 365,885.50

BCHD will need to provide the items listed below in the yellow highlighted area under Resources. The excavation for the slide repair will be performed by a BCHD approved excavation contractor from the road platform. It is anticipated that BCHD will need to shut down the entire road for the proposed repair. GSI will work with excavation contractor to achieve the appropriate slope geometry for the repair area.



If you have any questions please feel free to contact me at the 928.221.4343 or via e-mail at sara.magallon@gsi.us.

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