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CASE HISTORY

Ref. No.: CH/19/V-11-18-040		Year: 2019	
Name of the Work: Construction of Retaining structure using soil nailing and rockfall			
Mitigation.			
Client: Finolex Cables Pvt. Ltd.			
Proof Consultant: Mr. Shirish Joag			
Site Address: Finolex Cables Pvt. Ltd. Verna Industrial Estate, Verna Goa.			
Type of Work: Design, Supply and Construction of Retaining structure using soil nailing and			
rockfall Mitigation.			
Start Date: 10 th April 2019.		Completion Date: 22 nd Oct 2019.	
Value of Work: 85.63 lacs			
Nature of work:	The proposed work was to be carried out for Finolex Cables		
	Pvt. Ltd Project. As the laterite is found which is rich in iron and		
	aluminum. All laterites are of rusty-red coloration because high		
	iron oxide contents they developed intensive weathering of		
	under laying parent rock so as to prevent the rock to fall inside		
	the properties it is imposed that the engineering in charge of		
	Viraj engineers advised regarding the implementation of GP		
	lining to ensure the avoidance of water intrusion.		
	Viraj Engineers carried out the Design and analysis, Supply of		
	materials required and construction of Retaining structure		
	using soil nailing and Rockfall Mitigation measures in the top		
	half.		
	The details of the project are as under,		
	Maximum Height of the retaining structure – 13.5m		
Minimum Height of the retaining structure – 5.5m		the retaining structure – 5.5m	
Stretch length – 150 m		0 m	
	Quantity of Face Ar	rea- 1122 sqm.	
	The mobilization of	f manpower and machinery was completed	
	on 10 th April 2019	and the entire works were completed by	
	22 nd Oct 2019.		
	The protection of ca	avity formation was one of the challenges to	
	be achieved. The c	avity caracks were lined with GP lining and	

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drain anchors were provided for water draining system.
The retaining structure had 0.3m m drainage materials fixed
behind to reduce the pore water pressure and no hydrostatic
pressure is induced on the structure.
The top mitigation works were drapery system was used along
with surface anchors to hold the netting in position.
Inverted drainage holes 75mm PVC pipes spaced at 2m c/c
distance.
The Anchoring system was designed as per the FHWA
guidelines and all the details were followed accordingly.

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