

Soil Nailing Design for Strengthening of Existing Reinforced Soil Structure at Kurar Village, Pedestrian subway, Malad, Dindoshi

Project Summary: At the project site, Kurar Village, Pedestrian Subway, Malad, Mumbai, the existing road embankment and the mentioned subway rests on a Retaining wall with varying heights as per the road levels and ground elevation. The authorities have proposed to upgrade this pedestrian underpass to Vehicular underpass which calls for increase in the height of the embankment and hence of the existing retaining wall. Considering the volume of traffic and the function of the existing road embankment, it is proposed by the authorities to strengthen the existing wall and increase the height of the structure to achieve the Proposed Road Top Levels (RTL). Soil Nail system can be advantageous in Underpass widening/ Repair and rebuilding of existing retaining structures without disruption of the traffic flow. The soil nails are directly installed through the existing retaining structure.

Project Details

Client's Name	MMDRA
Consultant	Engosyms Consultants,Pune
Construction Year	2019
Product Used	25mm Dia Anchors
Contractor Name	Atharva Construction
Work Value	1.33 Cr



Solution Details: Soil Nails have been designed for the existing retaining structure, considering the loading of the proposed 1.6m wall which will be constructed over the existing retaining wall. Live load as per IRC recommendations have been considered in the design.



Site Photograph-Drilling 5m Deep of 75mm Dia Hole.



Completed Structure.

Present Status of the Structure: Structure was completed in 2019 and has withstood the increase in the height of the structure to achieve the Proposed Road Top Levels and comfortably handling the movement of Heavy vehicular traffic.