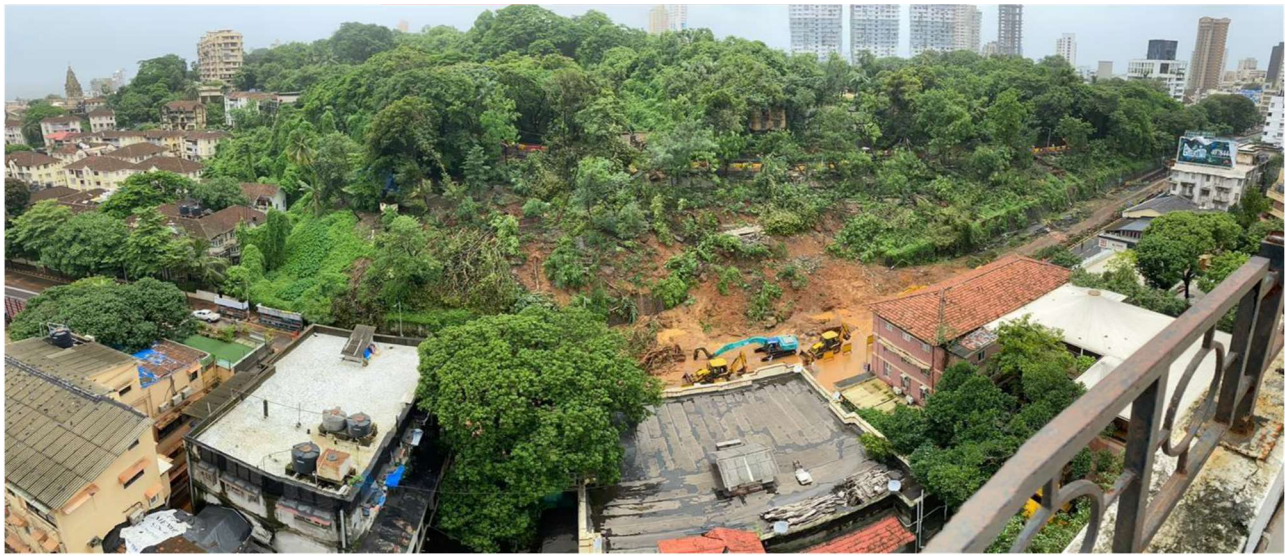


## Soil Nailing and Slope Stabilization Work at Malabar Hill, Mumbai.

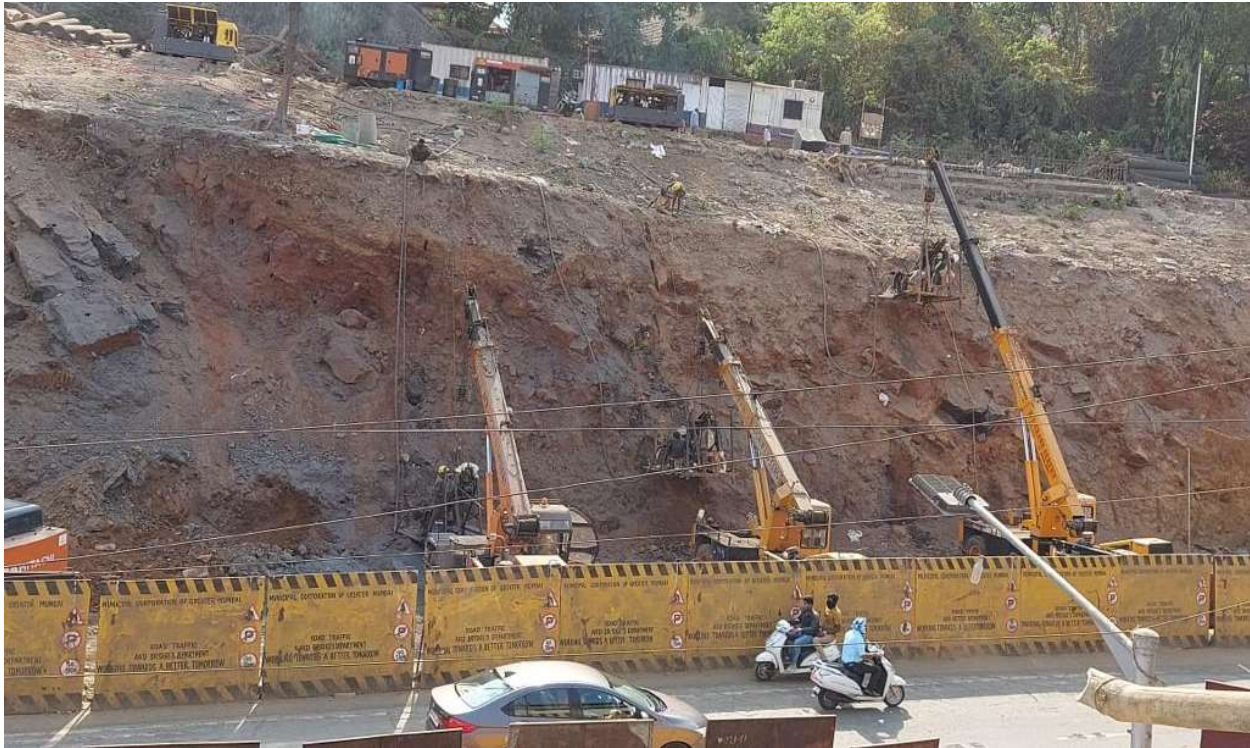
**Project Summary:** At Project Site Malabar Hill in D Ward Zone I the Existing Side Slope was failed due to land Slide by heavy Rainfall in Mumbai Region. The failed side slope location that was shown during Joint Visit by the Consultant, Contractor and client. The Working Area of failed side slope was 12000 sqm. The authorities have proposed Suitable method as below.

Project Details	
Client's Name	Municipal Corporation of Greater Mumbai (MCGM)
Consultant	M/s Structwel Consultant
Construction Year	2019-20
Product Used	1.Upto 24m long Anchor 2.DT Netting 3.Erosion Control Mat 4.Vegetation on Slope
Contractor Name	M/s. Atharva Construction
Work Value	10 Cr
Drilling Quantity	60,000 RMT



**Site Photograph: Slope was failed due to land Slide by heavy Rainfall in Mumbai Region**

**Solution Details:** Soil Nailing of upto 24m deep and 115mm Dia drilling have been done with Design angle, Safety point of view, and stability of slope and done for providing anchor for netting and erosion control mat. Erosion control mat is placed on the slope to control the soil erosion of slope and to produce natural vegetation and Greenery of area. Double Twisted netting is done to stabilized the slope and to support the erosion mat from getting failure.



**Site Photographs: Drilling at various locations**

### **System Benefits**

1. Green Solution-System makes good use of onsite material,
2. Failure Prevention-Actively holds surface, locking it deep into structure. Catches and retains surface failures.
3. Increased factor of Safety-Installation depth of anchors calculated to ensure system locks into structurally sound soil for an engineered solution.
4. Steepened Slopes-Allows slopes and embankments to be made steeper, reducing groundworks and maximizing use of space.

5. Lightweight-Easy to handle on site, adds minimal excess load to structure, Minimize settlement and subsidence, especially in poor soils.
6. Easy and efficient installation-can be installed quickly and economically, allowing fast assets protection and vastly reducing the time spent on site.
7. Promotes Vegetation-Improving contact between surface stabilizing products and soil means vegetation can establish more quickly.
8. Durable-Manufactured using corrosion resistant materials to create a long term solution.



**Site Photograph: Installing Erosion Control Mat**



**Site Photograph: Installing DT Netting Over Erosion Control Mat**



**Site Photograph: Plantation of Vegetation on Slope**



**Site Photograph: Gabion Toe Wall**



**Site Photograph after Completion of work.**