

**RETENTION WORKS FOR YADAGIRI GUTTA TEMPLE AREA
YADADRI BHUVANAGIRI, , TELANGANA, INDIA**

Reinforced Soil Walls and Slope Reinforcement

Problem

Sri Lakshmi Narasimha temple known as Yadadri or Yadagirigutta temple is a the once of the important religious temple situated on a hillock in Yadagirigutta of Yadadri Bhuvanagiri district of the Indian state of Telangana. Under the phase of temple renovation, there was a requirement of increasing the temple area around the hillock of the temple with suitable retention measures which will provide a good architectural view to the temple area.

Solution

Sri Lakshmi Narasimha temple known as Yadadri or Yadagirigutta temple is a the once of the important religious temple situated on a hillock in Yadagirigutta of Yadadri Bhuvanagiri district of the Indian state of Telangana. Under the phase of temple renovation, there was a requirement of increasing the temple area around the hillock with suitable retention measures which will provide a good architectural view to the temple area.

The site of temple renovation area is on a hilly terrain and the foundation strata is completely rock. The height of retention system to be constructed is varying from 10m to 40m. In order to meet the requirement of increasing the temple area and its premises, it was decided to go with the paramesh system with Terramesh as the facia for the entire length of 215m. As the foundation strata is completely rock, in order to avoid further excavation, RCC pedestal is proposed on the valley side to maintain flat base of required width wherever required. High strength geogrids - Paralink is proposed as a primary reinforcement to increase the stability of slope. Non-woven geotextile is provided behind Terramesh facia unit for separation and filtration. Longitudinal and transverse perforated PVC pipe of 160mm dia. wrapped with geotextile is proposed to collect & drain the surface and subsurface runoff to main drains. Further, at the interface of insitu strata and structural soil, a drainage composite is provided to dissipate the pore water pressure developed and to assist the flow of seeping water.

Client: ROADS & BUILDINGS DEPARTMENT, HYDERABAD

Designer / Consultant: MACCAFERRI ENVIRONMENTAL SOLUTIONS PVT. LTD

Contractor: SHR INFRASTRUCTURE PVT LTD

Products used (Qty.)

- Terramesh -4660 Nos
- MonoAxial GeoGrids -110000 Sq.m
- Nonwoven Geotextiles -20716 Sq.m
- Drainage Geocomposites -12333 Sq.m

Date of construction: 08/2018 - 12/2020

[Google Maps](#)

[Google Earth](#)



Fig 1: Site before construction

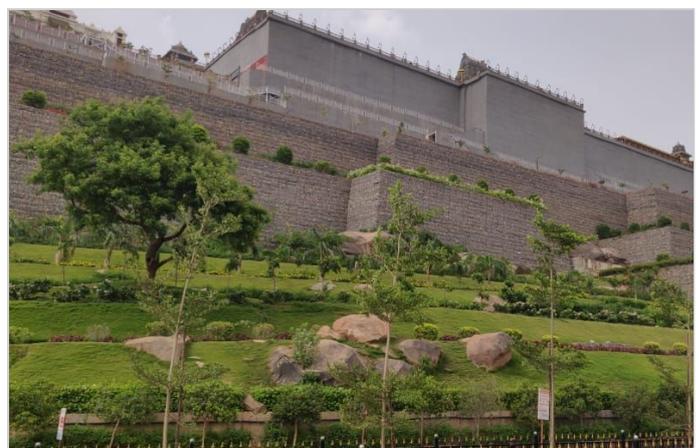


Fig 2: Paramesh system—post construction



Fig 3: Paramesh system—post construction



Fig 4: Paramesh system—post construction

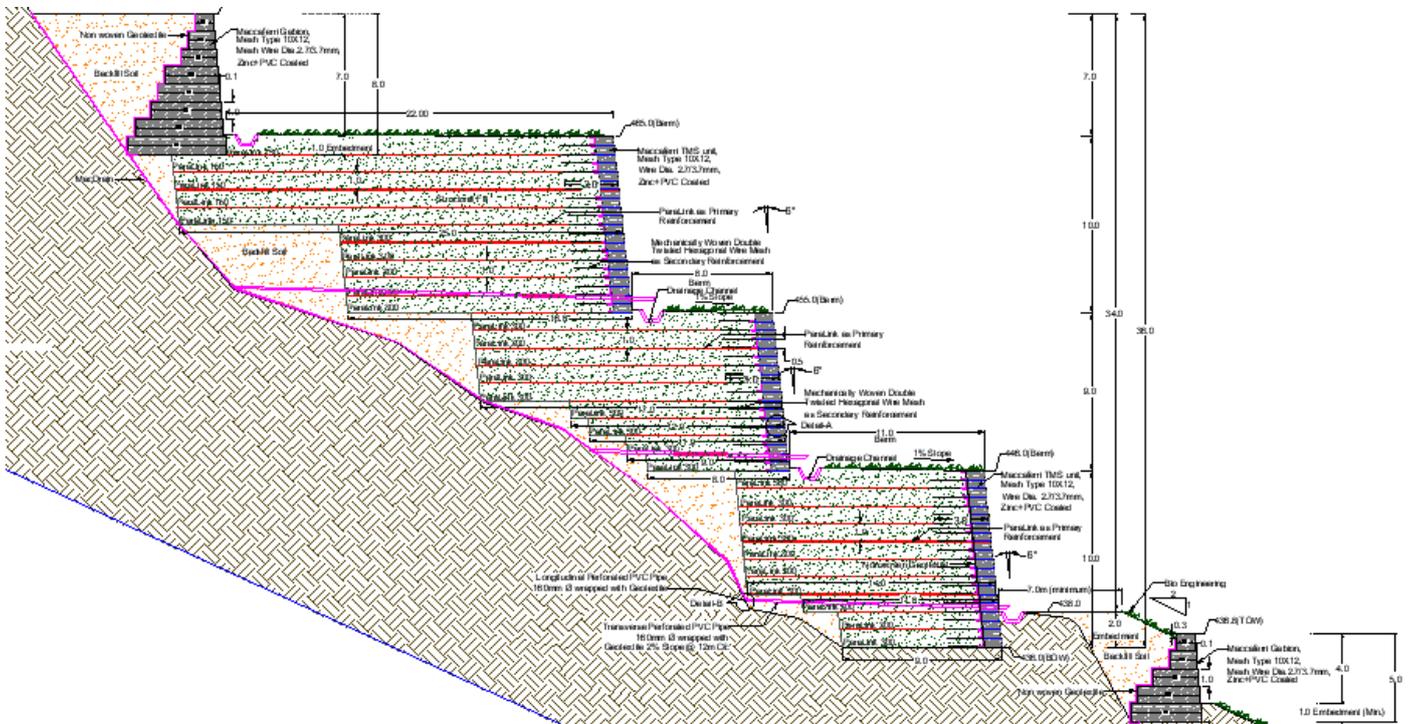


Fig 5: Typical cross section of the scheme