MACCAFERRI

CASE HISTORY

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MUSEUM OF THE FUTURE

DUBAI , EMEAR, U.A.E.

Landscape Architecture

Problem

The Museum of the Future (MOTF) is a unique initiative by the Dubai government that explores the future of science, technology, and innovation and will be located at a prime spot in Sheikh Zayed Road and near the Burj Khalifa. The architect 'Kila' designed MOTF in three main parts: the lower green hill, the upper building, and the elliptical void, representing earth, mankind & innovation, respectively. The inspiration for the green hill was also to elevate the building calmly and unobtrusively above the metro line and create greenery in elevation where visitors can enjoy while engaging with the Museum. The green hill is to be done through a smooth transition from the site as an earthen, vegetated mound with a minimal visible built intervention. A three-story podium structure will be embedded inside the green hill, which will house the lobby, auditorium, cafés, restaurants, retail, car parking, etc. For the aforementioned reasons, the vegetated mount must be done as a THIN CLADDING of varying slopes rather than a solid earth hill.

Solution

Maccaferri Middle East was chosen as the technology provider for the GREEN COVER SYSTEM; thanks to the wide range of products in our portfolio that can achieve the varying slope requirements of the artificial green mount in the project. After studying the landscaping requirements, Maccaferri proposed to categorize the green cover system based on final slopes, and accordingly, the products were suitably chosen as (1) Biomac cover for slopes up to 35-degree inclination, (2) Macweb geocell for slopes up to 45-degree inclination and (3) Green Terramesh reinforced soil system for slopes up to 70-degree inclination. For the first two cases, continuous veneer reinforcement was proposed below the thin soil fill by means of Maccaferri wire netting or Macmat HS, which will be anchored on the concrete beams at the top. Additionally, Macdrain drainage composite was proposed below the entire surface area of the green cover system for the easy draining of continuous irrigation water expected in the future. Maccaferri Middle East was involved in the design, supply, and construction assistance of the project.

Client: MERAAS

Designer / Consultant: Buro Happold Engineering

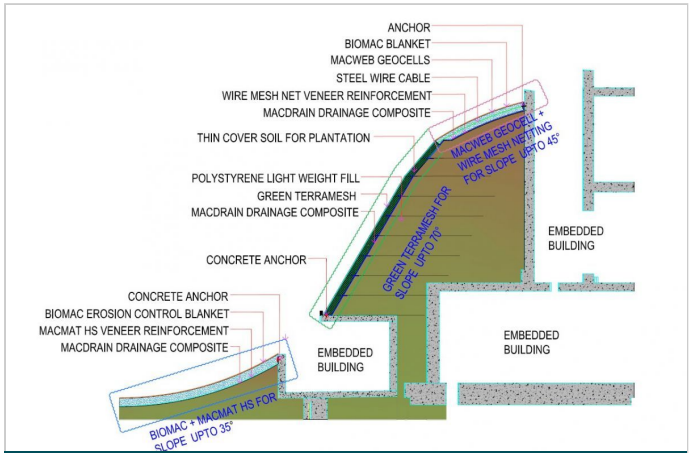
Contractor: BAM International

Products used (Qty.)

- Green Terramesh	3,500 m2
- MacWeb	3,000 m2
- MacDrain W	12,500 m2
- MacMat HS	6,000 m2
- Biomac natural	9,000 m2
- DT Mesh	3,000 m2

Date of construction: 11/2018 - 04/2021

Architectural rendering of the proposed 'Museum of The Future' project



Sectional detail of Maccaferri green cover solutions

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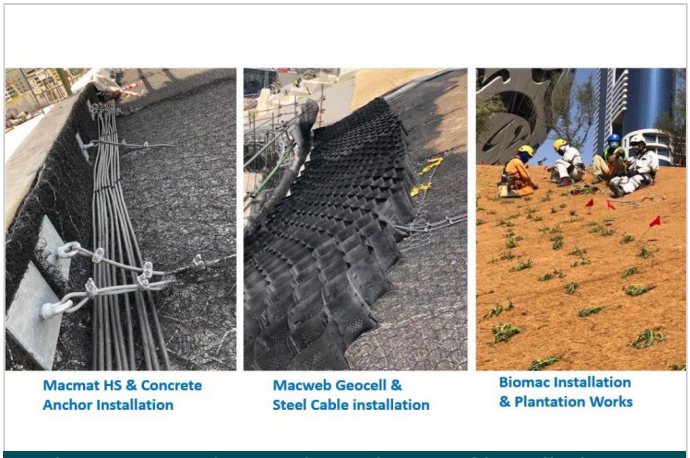
During construction: embedded building before covering with green cladding



During construction: various phases of installation works

During construction: Macweb geocell (before & after vegetation growth)

During construction: Green Terramesh soil slope (before & after vegetation)

Completed ‘Museum of The Future’ project (distant & close views)

Maccaferri Middle East
Dubai PO box 502594
United Arab Emirates
Tel:+97143608958
E-mail: info.ae@maccaferri.com