

Further information:

Edenvale Young Associates

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Project Contact:

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Project Description number:

EVY0197

Project Type

Flood Risk/Consequence Assessment

Flood Forecasting

Detailed Design

Calibration & Optimisation

Flood Map Challenges

Scour & Geomorphology

Water Framework Directive

Environmental Impact Assessment

Marine & Coastal

Training

Key Words:

Coastal Engineering

Geotechnical Analysis

Preliminary Design

3D Modelling

Client and stakeholders:

Ansari Engineering Services

Albiladh Real Estate

Bahrain Water Garden

Edenvale Young Associates were commissioned to undertake the detailed design of a shoreline revetment structure at the northern tip of the Bahrain Water Garden.

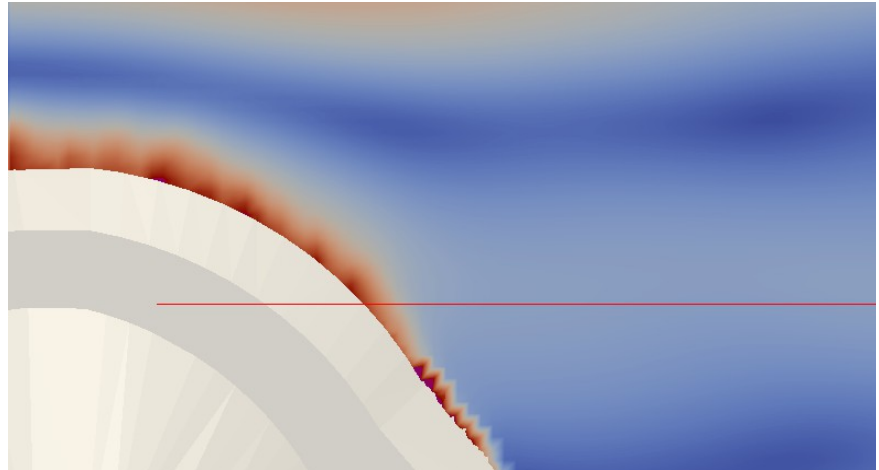


Illustration 1: Open Foam Results - Scour Assessment

Project Details

The scope of works includes the preparation of:

- Assessment of existing wave, wind and tidal studies
- Estimates of wave over topping
- Design of rock armour revetment
- Rock Armour Design
- Wave Force Calculations
- Slope Stability analysis
- Rock Armour Stability Analysis
- Preliminary Design
- Detailed Design

The scope of works included for the design of a rubble mound rock armour revetment at the northern extents of the reclamation. The predominant wave and wind direction approaches the development from an angle of 350° - 0° and as such the significance of this exposed location is paramount in providing a standard of protection against high tide levels and wave impact.

- The study included:
- Cost Engineering Optimisation

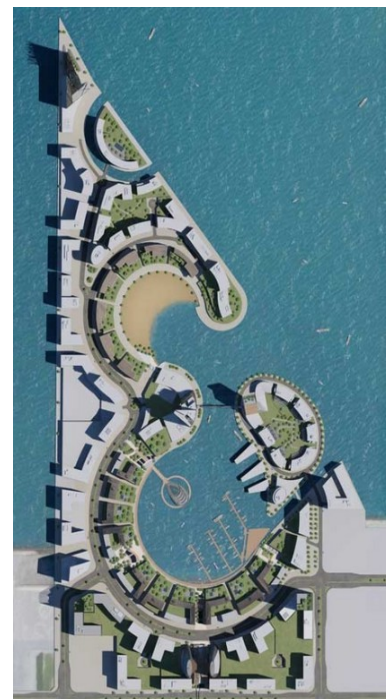


Illustration 2: Bahrain Water Garden Masterplan

Source:

www.watgardencity.com