

PROJECT DESCRIPTION STATEMENT

PROJECT: REPAIR WORKS AND WAVE DISSIPATION SLOPE
SITE: TIGNÉ POINT, TX-XATT TA' QUI SI SANA, TAS-SLIEMA
APPLICANT: MIDI PLC

AUTHOR: JOE BUGEJA ASSOCIATES
JULY 2019

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1. INTRODUCTION

The proposal being described within this document pertains to a site which has recently been developed at the peninsula of Tigné Point. The Site was also the subject of the Development Notification Order DN/00717/18 for the repair works to deteriorated concrete in the location. Works under this DNO have not been carried out due to dangerous working conditions on site and have now been incorporated into this proposal.

2. APPLICANT AND OPERATOR

The project proposal has been submitted by MIDI plc. The consortium has been granted the concession of Tigné point and has been responsible for the development of tower blocks incorporating both residential and commercial components.

The consortium has also been given the concession at Manoel Island. Following restoration of Fort Manoel, MIDI plc is currently seeking planning permission for the proposed developments in the area, including residential and commercial buildings alongside with infrastructural developments, including land reclamation, bridges, breakwater, and marina facilities.

3. PROJECT DESCRIPTION

The proposed development site measures circa 135 square metres and lies on the foreshore and at basement level of Q2 Tower Block. The site was originally protected from damaging wave action by means of a natural limestone coastal cave which has since collapsed through natural processes of weathering and erosion. This has exposed the concrete basement wall to North Easterly waves and resulted in accelerated deterioration of the reinforced concrete structure. The scope of this project is to affect repairs to this deteriorated concrete, and also provide protection for the same building from wave action.

Deteriorated concrete shall be removed by hydro-blasting. This shall be followed by treatment of the steel reinforcement against corrosion and installation of new reinforcement. Subsequently the outer side of the basement wall shall be encased within a new concrete lining.

Protection from wave action shall be provided by means of a wave dissipation slope. Hardstone boulders shall be placed on site to form a wave dissipation slope. Armour units shall then be placed upon this slope.

4. TIMING OF PROPOSED PROJECT

The project is expected to start directly once the necessary permits are in place. Subsequently the works are projected to take a duration of 3 months. It is important to note that this duration is weather dependent as the site is much exposed to storms especially from the North East.

5. LOCATION OF SITE

The site of the proposed development is located on the North-Eastern shore of Malta as presented in **Appendix A: PA Drawings**. The site coordinates are 35°54'89.89"N, 14°30'42.59"E, in an area known as Tigne Point, Sliema, and lies within the administrative area of the Sliema local council. The site is not readily accessible from land; to the East and West there is a significant drop (in excess of 3.0m) on the rocky fore-shore, to the North the site is bounded by the sea, whilst to the South the site is bounded by the Q2 Tower block basement wall. The site is situated at an elevation ranging from -1m to +1m above mean sea level and lies on the foreshore.

Until recently the site hosted a coastal cave naturally cut in the lower globigerina limestone shore. Through a natural process of erosion this cave was eroded until it collapsed, revealing the concrete basement wall of the abovementioned Q2 tower block, thereby exposing it to wave action. Such an exposure has led to accelerated deterioration of this reinforced concrete wall.

6. ALTERNATIVES

No alternative sites were considered – this proposal is for the repair and safeguarding of existing structures on site and as such no other location can be considered.

Two different alternatives are being considered for the physical intervention on site. One consists of a wave dissipation slope constructed of natural rock boulders, whilst the other consists of a slope with precast concrete interlocking armour units. Both alternatives would lead to the same environmental impacts, whilst also providing similar types of habitats for coastal and marine organisms. Nonetheless, whilst these two options are rather similar, it is to be noted that a natural rock boulder slope would need to be rather shallow with a slope not exceeding 1:2; on the other hand for the option using interlocking concrete units the slope could be increased to 1:1.5, thereby reducing the extents of the intervention by *circa* 3.0m.

7. PHYSICAL CHARACTERISTICS OF THE PROPOSED PROJECT

8. SIZE, SCALE AND DESIGN OF THE SCHEME

Plans and details describing the proposed project are presented in **Appendix A: PA Drawings**.

The project proposal is for a slope with a finished top level at +5.60m above MSL. Considering interlocking concrete units with a slope of 1:1.5 the horizontal extent of the wave dissipation slope shall be 15.75m and 12.88m wide at its widest point.

9. CONSTRUCTION PHASING

Phase 1: Repair works to deteriorated reinforced concrete wall

Expected Duration: 4 weeks

Phase 2: Construction of wave dissipation slope

Expected Duration: 8 weeks

The duration of the works is expected to be of 5 months. However such works in a very exposed location are weather dependent and the occurrence of North Easterly inclement weather could disrupt the program of works and delay the completion of the project.

10. PRESENT USES AND ENVIRONMENTAL CHARACTERISTICS OF THE SITE

The vast majority of the site consists of the public foreshore and is currently not used. A very minor part of the site consists of the basement wall of the Q2 Tower block which is to be repaired.

The foreshore consists of low lying rather fissured globigerina limestone cliffs. These surround a small shallow inlet extending to the concrete basement wall. Sparse coastal vegetation is supported by a thin layer of weathered rock and soil at the top of the cliffs.

11. SURROUNDING LAND USES

The site is bounded by the residential and commercial development at Tigné to the South and West. To the North East the site is bounded by the open sea. To the South East the site lies contiguous to globigerina limestone foreshore rather similar to that on the site.

Most land in the vicinity of the site within a 500m radius (Tigné peninsula) has been developed and is built up; development and land uses comprise residential, commercial, offices, historical fortifications at Fort Tigné, sports facilities, hotels, infrastructure and roads (most major of which being Triq ix-Xatt ta' Qui Si Sana) and a public garden.

12. UTILITIES AND SERVICES AVAILABLE ON SITE

The site is not connected to any service or utility network. No provision is being made to extend services (potable water, electricity or sewerage) to the site.

Storm-water runoff generated from the site flows naturally down to the sea in the present situation. This proposal does not seek to amend such natural flow and storm-water runoff shall be able to flow through the wave dissipation slope which will be porous and permeable.

13.EMPLOYMENT – EQUIPMENT – RESOURCES – WASTES

14.CONSTRUCTION PHASES

The maximum number of workers on site at any one time is expected to be less than 15 for the entire duration of the works. Plant and equipment requirement for the execution of the works are those which are used on a day to day basis in the ordinary local construction works. This shall consist of heavy and light trucks, cranes, hydro-blasting equipment, and surveying equipment. Other equipment to be used shall consist of powered hand tools which can be safely lowered and used within the site constraints.

The main resources to be used during the project – primarily being construction materials necessary for the execution of the project – are listed below:

- Concrete (for repairs) 10 m³
- Steel Mesh and Bar Reinforcement 2,500 kg
- Rock boulders for revetment 210 m³
- Armour layer units 160 m²

Waste generated during the implementation of the project shall comprise demolished concrete and corroded reinforcement during the first phase (repair works). Care shall be taken to prevent overspill of any such material to the sea or adjacent coastal areas, and appropriate containment measures shall be implemented with the scaffolding structures to be erected. All waste materials shall be collected separately and carted away for disposal at approved dumping sites.

15.OPERATION PHASE

No water, electricity, energy or raw material consumption shall be required during the operational phase of the project. Similarly no plant or equipment shall be used, no waste shall be generated, and no personnel shall be employed during the operational phase of the project. It is to be noted that the physical construction of the wave dissipation slope shall protect the basement wall by virtue of its own mass and shall not require any human intervention for its operation.

16.ACCESS ARRANGEMENTS

The site is currently rather inaccessible and shall remain inaccessible as there is no reason for the provision of private or public access to the site. During the course of the works access to the site across the physical drop shall be managed by means of temporary scaffolding with stairs or ladders and by means of cranes.

17. LIKELY ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

During the first phase (repair works) pollution due to accidental overspill of demolished concrete or construction materials could occur. A temporary scaffolding structure shall be erected prior to the first phase; this shall have horizontal platforms and vertical screens to contain any debris or construction materials which might accidentally fall from polluting the marine environment.

The proposed intervention in the second phase (construction of wave dissipation slope) is expected to result in the obliteration of the seabed and foreshore within the site as these would be covered by the proposed wave dissipation slope. However it is to be noted that the proposed intervention shall provide a habitat which is similar to the obliterated one; this would eventually be colonised by the same type of organisms as would presently inhabit the site.

18.APPENDIX A – PA DRAWINGS