PA 3368/06

UPGRADING OF QUAYS AND VESSEL MANEUVERING AREA AT MALTA FREEPORT, KALAFRANA

TERMS OF REFERENCE

FOR THE PREPARATION OF AN

ENVIRONMENTAL PLANNING STATEMENT

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FOR THE
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Note 1: *Environmental Impact Assessment is the process of identifying, predicting, evaluating and mitigating the biophysical, social and other relevant effects of development proposals prior to major decisions being taken and commitments made*" (IAIA, 1999)[1]. The EPS is to document clearly and impartially the impacts of the proposal, the proposed mitigation measures and impact significance. In accordance with best practice, this shall be carried with professionalism, rigour, fairness, objectivity, impartiality and balance.

Note 2: The Malta Environment and Planning Authority (MEPA) reserves the right to request additional studies should the findings of the EIA not be sufficient to adequately inform the decision making process or if the EIA identifies matters which should be subject to further (or new) studies.

All requirements set out in these Terms of Reference must be complied with. If there are any sections that the consultant deems that they are not relevant to this study, the consultant shall inform MEPA accordingly fully justifying his/her reasoning.

Should, during the process of the EIA the consultant discovers any environmental feature/s not included in these Terms of Reference that need to be studied, the consultant shall inform MEPA immediately, justifying his/her reasoning.

Note 3: Difficulties, including technical difficulties and lack of information, encountered by the consultants in compiling the required information shall be made clear. All references to published works and sources of information shall be duly acknowledged. No material may be incorporated by reference unless it is reasonably available for inspection by potentially interested persons within the consultation period. Any material which is based on proprietary data which is not available shall not be incorporated by reference.

Note 4: Experts contributing to the EIA should be specifically asked to consider impact interactions and to communicate information between each other.

Note 5: Important reference texts in this case are to include Subject Plans, Local Plans, etc.

Note 6: A list of all permits, licenses and other forms of authorization (other than the development planning permit) which must be obtained by the applicant in terms of any other law in implementing the development if permission is granted must be included in the EPS. If consultants are uncertain whether an authorization is necessary, they shall so indicate in the EPS.

Note 7: Following the review of the EPS, MEPA usually submits comments to the EIA consultants for further clarifications. Once the consultants respond to these comments to the satisfaction of MEPA, a second draft of the EPS, that includes these clarifications, must be prepared. MEPA will only accept an Addendum containing these clarifications if the clarifications are few or where the EPS is still easy to follow with the Addendum.

[1] International Association for Impact Assessment (IAIA). (1999). *Principles of Environmental Impact Assessment Best Practice*. Document published by the IAIA in cooperation with the Institute of Environmental Assessment, UK.

Note 8: Any requirement for confidentiality of any section of the EPS must be justified and a formal request in this regard must be submitted to MEPA. Should MEPA grant confidentiality for specified sections, alternate material that excludes confidential details must be provided for public consultation.

An Environmental Planning Statement (EPS) is to be prepared for the proposed development at Kalafrana, as required by the Environmental Impact Assessment Regulations, 2001 (Section 10). The components of the EPS are to be:

i. A **technical report**, in conformity with Sections 1-5 and their contents as outlined below. This report should describe the project in its totality.

ii. A **separate appendix** containing all original survey reports as prepared by individual consultants for specific topics. The individual expert's report should include all the relevant raw data derived from testing and/or analysis.

iii. A separate **non-technical summary** of all sections of the technical report (to be also provided in digital format and in both the Maltese and English languages). This summary should include any assumptions made in the report; key features of the site (including surroundings) and proposed development; key impacts and any proposed mitigation measures to minimise costs (externalities) and maximise benefits arising from the proposed development. Technical terms, lists of data and detailed explanations of scientific reasoning should, where possible, be avoided.

iv. A **digital copy** of the first version of all elements of the EPS in pdf format, which includes all the above, including any plans, maps, photographs, graphs, and any other contents of graphical/visual nature contained within the EPS. Once the EPS has been certified a **digital copy of the certified document** is to be submitted to MEPA.

v. Conformity with sub-Regulations 28 and 29 of the EIA Regulations (refer to Appendix 1 of these Terms of Reference).

1. A DESCRIPTION OF THE PROPOSED DEVELOPMENT

The description of the proposed development is to include consideration of the aspects outlined below. This description must take into account the whole development that is, Terminal One West Quay development, Terminal Two development, dredging and stabilisation of fairways, and any ancillary facilities connected with, or arising due to, the project (such as any infrastructure required). Where relevant, this section should include maps, plans, diagrams, models and/or photography.

1.1 Justification for the Proposal

1.1.1 *Objectives*
A description shall be provided of the environmental, social and economic objectives that the proposed development seeks to address, and whether such objectives stem from current international obligations and national, regional or local policy, plans and guidance.

1.1.2 *Demand*
Current and expected demand for the proposed quay development, dredging and all the proposed uses and their size in the area proposed. The study shall explain how the proposal (its size and nature) will address this demand.

1.1.3 *Future developments*
Future developments/needs of the Freeport shall also be addressed, including further needs for dredging.

1.2 A Description of the Proposed Development

1.2.1 Description of the proposed development including details of the proposed site layouts showing the design (size, area, height, volume, proposed elevations [scale1:100]), external appearance, location of all developments and proposed access arrangements.

1.2.2 Land and sea use requirements and site details,including land take required for facilities ancillary to the proposed development. Proposed facilities on the ground (including infrastructure, storage, servicing facilities, security etc.) in terms of size, area, height and volume, proposed elevations, layout, method of construction, etc shall be described. The extent of the marine areas to be reclaimed and dredged is to be indicated on maps.

1.2.3 A description of the layout of the proposed areas to be reclaimed and dredged and the resulting profiles. Area and depth, quantity and size of any proposed structures such as retaining walls, breakwaters etc.

1.2.4 Proposed project management arrangements, which should include a description of:

- expected duration season, frequency, duration of interventions on the marine environment;
- method of dredging, including dredging rate and machinery to be used;
- amount and type of waste generated from dredging and method of disposal;
- method of reclamation;
- amount and type of material to be used in reclamation;
- types and quantities of raw materials and primary resources including water, energy, stone and other resources consumed;
- measures to reduce consumption of primary resources;
- proposals for protection of adjacent marine areas during construction; and

- identification of the routes for the transportation of materials to and from the site, the number and size of vehicles and their respective frequency of use. These shall be justified in terms of minimizing associated environmental impacts on the surrounding area.

1.2.5 A dredging plan shall be submitted describing the timing of proposed dredging and any maintenance dredging that may occur.

1.2.6 Existing utilities on site (water, electricity, sewerage network, etc.) and an indication as to whether these are sufficient for the proposed development.

1.3 A Description of the Operational Features of the Project

1.3.1 On-site servicing of equipment, vehicles and other machinery.

1.3.2 A description of the envisaged changes in Freeport boating and other activities due to the proposed development and how these may change through time.

1.3.3 A description of the actual size of vessels to be handled, thus specifying the Length Overall (LOA), Maximum Breadth and Maximum Draft.

1.3.4 A description of turning circles, taking into account the actual size of vessels to be handled.

1.3.5 Residues and emissions by source, type, quantity, composition and concentration. These should include the types of waste/resources created by the proposal itself and their method of disposal, distribution of dust arising from the construction, on site disposals, discharges to water (e.g. discharges from storage tanks, fuel spillages, fuel emissions, leaks, transport and refuelling spillages and storm water run-off), emissions to air, noise, vibration, light, and other deposits/residues into land and soil, their disposal and/or reuse.

1.4 Waste Management

1.4.1 This section is to address the Terminal One West Quay Proposed Development, Terminal Two Expansion Programme and Dredging and Stabilisation of Fairway projects.

1.4.2 A general policy statement and commitment by the developer to reduce waste generation and minimise landfill disposal where possible.

1.4.3 Construction:

- Identification of processes and/ or activities that would result in waste generation;
- The identification of all possible waste streams which may be generated by each activity including wastes generated from any ancillary facilities required on the site;
- The European Waste catalogue Code for each waste stream identified, as per schedule 1 and the corresponding H code (if applicable) for each waste stream as per schedule 2, of the Waste Management (Permit and Control) Regulations as published by LN 337 of 2001, should be identified.
- The projected quantities for each type of waste (details of assumptions made and the methodologies adopted for achieving such estimates should also be included).
- Impacts of the waste streams to be generated during this phase
- An assessment of alternatives for proposed management of the waste based on waste management alternatives which should include:

a) Infrastructural elements required for the storage and management of waste on site of the scheme
b) Measures to be adopted to ensure protection of the surrounding environment from such wastes whilst these are being stored on site of the scheme;
c) Measures to be adopted in the event of accidental spillages occurring on site

- Identify methods that shall be adopted to reduce waste generation, during this phase of the development. Measures to be taken for the separation of different waste fractions and the reuse/recycling and final disposal of waste are also to be included;
- Details of transportation of waste including measures to be taken to protect the surrounding environment during transport of waste;
- Details of waste management facilities and waste contractors/operators proposed shall be provided.

1.4.4 Alternative disposal routes of the dredged material.

1.4.5 Impacts of the waste streams likely to be generated during the construction and phase of the development.

1.4.6 Measures to be adopted to ensure protection of the surrounding environment from such wastes.

1.4.7 The dredging of and the stabilisation of the fairway should make reference to Specific Guidelines for Assessment of Dredged Material falling under the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972.

1.5 Consideration of Alternatives

1.5.1 *Alternative Technologies*
An assessment of the alternative technologies and methodologies during dredging and construction (such as piles) should be considered. This section should contain a detailed explanation of the proposed technology to be used for dredging and an assessment of alternative technologies which can be used to achieve the objectives of the proposed development. The use of Best Available Techniques (BAT), considering the geographical location and local environment shall also be addressed. The information shall be presented in tabular format indicating technologies and associated environmental impacts, in sufficient detail.

1.5.2 *Alternative Sites*
An identification of alternative sites (including the proposed site and other suitable sites), based upon the possibilities and constraints posed by physical characteristics and features of the project, its operational features, and land-use requirements. A description of the sites and site-specific environmental impacts shall be provided.

1.5.3 *Zero option*
A zero option assessment should be included (that is, an assessment of the way the site would develop if it were left in its current state).

1.5.4 The findings on the environmental impacts of alternative technologies shall be combined with those on the environmental characteristics and environmental impacts in alternative sites, layouts and services. This will enable the identification of best combinations. The technical and planning reasons why a particular technology and site was selected in preference to all the others must be clearly explained.

2.0 A DESCRIPTION OF THE PROPOSED SITE AND ITS SURROUNDINGS

Note 9: This description is identified by the area of influence for each relevant parameter. The area of influence for each parameter shall be determined by the consultants who shall also justify the extent of the chosen area of influence. This must be approved by the Malta Environment and Planning Authority prior to commencement of the EIA. This description should include:

2.1 Land and Sea Uses

Land use of the proposed site including settlements and surroundings workplaces, places of worship, production, commercial, recreational and other uses. Details including nature and magnitude, proximity to site etc. should be included. A description of the recreational, commercial and any other marine activities occurring within and around the area to be reclaimed and dredged.

2.2 Bathymetry

A bathymetric map of the locality, including a description of the sea bed topography.

2.3 Geology and Geomorphology

Survey and characterization of the sites' geology, geomorphology and sediments.

2.4 Marine Ecology

A survey of the existing benthic environment on and around the site. This is to consist of a survey along a transect system to characterise the benthic communities in the area. A video survey, characterising habitat types, and identifying the presence of protected species, protected areas and any natural habitats of ecological importance and endangered, rare or unique species known to be found in the locality. The floral assemblages and fauna noted during the survey are to be recorded and characterised according to the system given in Borg & Schembri (2002)[2], and mapped as necessary.

A survey of pelagic organisms occurring in the area around the proposed deployment.

Assessment of the fish populations in the surveyed areas. The type of assessment required is indicated below:

a) Lists of species encountered in the survey according to the area were they were encountered;

b) A generic assessment as regards the abundances of species i.e. individuals, frequency, shoals, etc.

c) A qualitative assessment of the above in terms of the ecological niches to which the species pertain e.g. comparison of demersal species encountered near/on the present wreck with demersal species located on the site of dredging.

A description of the characteristic sediment infauna.

Identification of important and/or protected species shall be included as well as of indicator or key species relevant to characterisation of the habitat and monitoring purposes.

[2] Borg, J.A. & Schembri, P.J. (2003) Alignment of marine habitat data of the Maltese Islands to conform to the requirements of the EU habitats directive. In: Sant, M. (Editor) *Marine habitats data of the Maltese Islands*. Interactive CD. Floriana, Malta: Malta Environment and Planning Authority. [Compact Diskette]

2.5 Waves and Currents

A description of the present prevailing and local currents and their velocity and wave climate and exposure within the port of Marsaxlokk. This should refer to but not be restricted to prevailing weather conditions particularly with wind coming from the South East quadrant.

2.6 Water and Sediment Quality

A description of the chemical characteristics of the marine environment. The composition and classification of sediment, including the material to be removed or displaced through dredging shall be given. Analysis of heavy metals, hydrocarbons and other pollutants within the sediment shall occur.

2.7 Archaeological Sites and Cultural/ Historical Features

A survey to determine the presence of any archaeological remains in the area to be dredged and reclaimed. This is to include an adequate buffer around the construction area. Refer to Appendix 2 for more detailed Terms of Reference.

2.8 Any Other Relevant Environmental Features

3.0 PLANNING, POLICIES AND LEGISLATION

3.1 The relevance of Maltese legislation and Maltese planning policy (notably the Structure Plan and the North West Local Plan) and its compatibility (or otherwise) with the development or its impacts should be described and analysed. In particular, policies on the following should be noted: conservation areas and zones, protected buildings and sites, areas of natural beauty, areas of scientific, ecological, archaeological, agricultural, architectural, historical, antiquarian or artistic value, aquifer protection and run-off, transport policies (including parking standards). Note that waste water disposal regulations apply, as per L.N 139 of 2002, which falls under the remit of the Water Services Corporation.

3.2 Policies of other ministries will provide an important context for the proposed development. Reference should also be made to environmental regulations, policies concerning waste treatment, transport, public health, agriculture and tourism.

3.3 International polices or conventions which may affect the site or area. For instance details about compliance with European Union regulations, directives and conventions should also be considered, their relevance to the project highlighted, as well as how compliance will be achieved.

4.0 ASSESSMENT OF ENVIRONMENTAL IMPACTS AND RISKS OF THE PROPOSED DEVELOPMENT

All significant impacts and risks posed by the proposed project during excavation, construction and operation stages, should be assessed, given the environmental characteristics of the site and its surroundings, outlined in Section 3 and the policies outlined in Section 4. A descriptive and quantitative analysis (including magnitudes and timing) of the impacts of the proposals should be made, and presented in

summary chart/table format. The various techniques, methods and assumptions used in the analysis and predictions should be outlined. The impacts should assess:

i. Description of the impact;
ii. Duration (temporary or permanent);
iii. Extent (in relation to site coverage and surroundings and associated features);
iv. Direct or indirect impact;
v. Adverse or beneficial;
vi. Reversible or irreversible effects of the impact and extent or irreversibility as well as description of any associated conditions/assumptions for irreversibility;
vii. Sensitivity of resources to impacts;
viii. Probability of impact occurring;
ix. Confidence level/limits to impact prediction;
x. Scope of mitigation/enhancement;
xi. Residual impacts; and
xii. Worse case scenarios.

4.1 Effects on Land and Sea Uses

The impacts arising from the proposal and associated activities such as the turning circles on the current land and sea uses, shall be provided. The assessment shall consider the impact on the socio-economic uses of the area including impacts on private pleasure craft and moorings, impacts on present buoys and ground tackle of the various tanker berths.

4.2 Effects on Geology

The assessment shall investigate the effects and risks of excavations on the geology, including the stability of the surrounding land, given the type of bedrock and deposits in the area.

4.3 Effects on Marine Ecology

The assessment shall give details of the expected impacts marine ecology, including benthic and pelagic communities and fish populations. Changes in communities and ecosystems shall be highlighted.

4.4 Effects on Archaeological, Cultural/ Historical Sites and Features

The impact of the proposal and associated activities on the archaeological, cultural/historical sites and features.

4.5 Effect on Currents

Effect of the proposal on the prevailing and local currents and the effect of the currents on the proposed dredging and reclamation shall be assessed.

4.6 Effects on Water and Sediment Quality

The effects this project will have on sediment characteristics shall be assessed in addition to effects on possible turbidity problems.
The impacts of the dredged material on the proposed dumping site shall be described.
The effects on bathymetry shall also be assessed.

4.7 Effect on Public Health

This shall assess the effects on the health of both on-site personnel and of the sensitive receptors within the relevant area of influence. Impacts on the bathing water

quality arising due to reclamation and dredging works accounting for seasonality of the works. Reference should be made to published epidemiological and other studies, where relevant

4.8 Effects of Noise and Vibrations

Including effects of noise and vibrations arising both during the construction and the operation stages of the proposal. The impacts on the surrounding noise-sensitive uses shall be assessed in terms of magnitude, duration and type.

4.9 Landscape and Visual Impact

A landscape impact assessment shall be submitted, to include the impacts of change of use and public perception of the area in question.

A visual impact assessment referring to both the proposed development and any other ancillary developments associated with it shall be submitted. Such assessment shall also include views from the site and photomontages into the site. The impact of the proposed development on the visual amenity of the site should be assessed.

A zone of visual influence (ZVI) should be established and significant viewpoints identified and agreed with MEPA. Colour photomontages taken from points agreed with the MEPA are to be submitted on A4. Given the absence of local guidelines on visual and landscape assessment, it is recommended to use '*Guidelines for Landscape and Visual Impact Assessment'* 2nd Edition, published by Spon Press, 2002and edited by the Landscape Institute and the Institute for Environmental Management and Assessment (IEMA) of the UK.

Apart from the photomontage itself, the following are required:

- A copy of the base photograph used in the preparation of the photomontage (this should enable a comparison of the situation as existing and as proposed - hence the size of the photograph depicting the situation as at present is to be of the same size as the photomontage);
- Date when the base photograph was taken;
- A site map indicating the exact positions from where the photographs were taken and to which the photomontages should cross-refer; and
- Height of camera from which the photos was taken.

Given the absence of local guidelines on landscape assessment it is recommended to use 'Guidelines for Landscape and Visual Impact Assessment, 2nd Edition', published by Spon Press, 2002 and edited by The Landscape Institute and the Institute of Environmental Management & Assessment. Reference should also be made to the MEPA's 'Draft Landscape Assessment Study' that can be downloaded from the MEPA's website (www.mepa.org.mt).

4.10 Social Impacts

The social assessment for the proposed development shall assess the impacts of the proposal on the surrounding resident and visiting population and their social activities such as marine recreation (including waterpolo, bathing, fishing, etc) and other forms of recreation.

4.11 Risk Assessment and Navigational Study

A risk assessment shall be undertaken together with a navigational and manoeuvring study allowing for safe distances and minimum turning circles for the existing tanker berths. The study should be based on the actual size of vessels that are expected to be handled and should include fast time and real time results for specific scenarios.

4.11 Secondary Impacts

Mainly arising from the extraction and consumption of resources necessary to implement the project, as well as from developments supporting the project (e.g. new roads, sewers, power lines, pipelines, telecommunications), such as water, energy, construction materials, and the resultant need (if any) of development of new supplies.

4.12 Indirect and Cumulative Impacts

Indirect impacts are those caused by the direct impacts; they often occur later than the direct impact, or farther away. Cumulative impacts are those impacts that result from the incremental impacts of an action added to other past, present, and reasonably foreseeable future actions regardless of who undertakes them. This should also include the impacts of the project viewed in terms of other projects.

4.13 Other Environmental Effects

Other environmental effects other than those identified in sections 4.1 – 4.12 shall be described and their impacts assessed. This shall also include the effect of dust generated during the construction processes on the surrounding area.

5.0 DESIGN OF MITIGATION MEASURES, IDENTIFICATION OF RESIDUAL IMPACTS AND MONITORING PROGRAMME

5.1 Mitigation Measures

This should include a description of the measures envisaged to prevent, minimise and where possible offset any significant adverse effects on the environment of the project, (including reference to consideration of alternatives in section 1.2 above). Such measures could include technological features; management techniques; enhanced site-planning and management; aesthetic measures; conservation measures; reduction of magnitude of project; and health and safety measures. Alternative berthing arrangements (possible re-organization of moorings and berths at St George's Bay) shall be investigated.

5.2 Residual impacts

Any residual impacts, that is those impacts that cannot be mitigated or those remaining impacts following implementation of mitigation measures, should also be described, quantified and presented in a tabular format.

5.3 Monitoring

The consultants must propose a monitoring programme, which should take into account monitoring of those features that are considered to be impacted negatively or the impact of which is uncertain. The program must be proposed at different stages: before, during and after construction. Details regarding type of and frequency of monitoring must also be given. This program shall include an audit and evaluation of forecasts, predictions and mitigation measures made in the EPS.

Appendix 1: Sub-Regulations 28 and 29 and the EIA Regulations.

Environmental Impact Assessment Regulations, 2001
Regulation 28 and Regulation 29 of the EIA Regulations, 2001

Regulation 28

List of Consultants (Extract from the EIA Regulations)

28. (1) The environmental impact statement shall list the registration number and the names of the consultants and contributors responsible for the preparation of the environmental impact statement, environmental survey reports, appendices, non-technical summary and other components of the statement.

(2) The consultants who are responsible for a particular analysis, including analysis in the environmental survey reports, shall be identified.

(3) All consultants and contributors employed in the environmental impact assessment shall sign a declaration stating that the particular study (or part thereof) was solely carried out by them. This signed declaration shall be included with each environmental survey report included with the environmental impact statement.

Signed declaration in accordance with Regulation 28 (3)

Director General
MEPA

I _____, who carried out the study (or part thereof) on _____ for the EIA of PA xxxx/xx for the proposed _____,hereby declare that such study was solely carried out by me.

_____ _____

Date Signature

This declaration is to be included with each environmental survey report included with the EPS.

Regulation 29

Conflict of Interest (extract from the EIA Regulations)

29. (1) In the interest of fairness, objectivity and the avoidance of bias, all consultants shall required to sign and abide by a declaration that they have no personal or financial interest in the proposed development.

(2) The Director of Planning and the Director of the Department shall not approve consultants or consultancy firms that are in any way associated with any company, association or grouping that has any direct or indirect personal, association or grouping that has any direct or indirect personal, professional or financial interest in the proposed development.

(3) The Director of Planning and the Director of the Department shall not approve any environmental impact statement or environmental planning statement produced by a consultant or group of consultants, one or more of whom does not comply with the provisions of sub-regulations (1) or (2) of this regulation.

Signed Declaration in accordance with Regulation 29 (1)

Director General

MEPA

I _____, herby declare that I have no personal[3] to the best of my knowledge, or financial interest in the proposed development, namely _____.

Moreover, I declare that I am not in any way associated with any individual, company, association or grouping that has any direct or indirect, personal, professional or financial interest in the abovementioned proposed development.

Date _____ Signature _____

Such declaration is to be sent to MEPA when proposing the list of EIA Consultants prior to their approval or otherwise.

[3] Personal refers to first degree relations (father and son or brother and sister, husband and wife).

Appendix 2: Terms of reference for Cultural Heritage Assessment

1. Objectives

The purpose of the Report of Survey is to provide a comprehensive study on the cultural heritage assets, consisting of archaeological, historical, architectural, rural and vernacular features, including rubble walls. The report shall:

a. Identify, document and present all relevant information about cultural heritage assets within the area of study;
b. To describe and analyse the cultural landscape;
c. Assess the cultural heritage significance of each feature and of the area of study;
d. Propose statutory and physical protection of the individual features and of the site; and
e. Propose mitigation of impacts arising from proposed development and a monitoring programme during construction and operation of the development.

The survey and report should be specific to the identification, assessment and valorisation of the cultural heritage value of the features within the area of study, irrespective of land ownership and any proposed development.

2. Area of Study

The area of study for the purpose of this report shall be as indicated.

3. Contents

3.1. Studies and Surveys

3.1.1. Desk-top Study

The desktop study shall seek to collate information about the cultural assets present, events that have taken place, the cultural relevance of the site throughout history, and the archaeological potential within the area of study. This study shall include:

a. Reference to existing literature, old manuscripts, reports of previous Discoveries;
b. Study of toponyms;
c. Analysis of cartographic, photographic, and other graphic material; and
d. A bibliography of sources consulted.

3.1.2. Site Survey

A surface visual survey within the area of study shall:

a. Identify and record surface features, also noting their condition. An attempt shall be made to describe typologies of cultural features, including rubble walls. Typologies should be based on form, materials, technology, use intention, possible dating/phasing, and other architectural details that enable the distinction of one type from the other;
b. Identify and record pottery scatters. However, the collection of pottery shards is not allowed;
c. Recording of the features on a map (scale 1:2500); and
d. The investigation of potential archaeology (buried or surface) should be considered as a reserved matter and as directed by the Superintendence of Cultural Heritage.

3.1.3. Recording Specifications

Relevant information for each feature shall be presented data cards as supplied by the MEPA (specimen attached at the end of this document). Each feature should be individually identified with a consecutive reference number. The individual specific reference number shall be used throughout the report when cross referencing with maps, photos data cards and text. The information on each card for each feature shall include:

a. Short description.
b. Co-ordinates recorded up to 5 digits for each northings and eastings based in the local/UTM grid reference.
c. Locality and address.
d. Site indicated on a map to a scale of 1:2500
e. Photographs
f. Scaled diagram/sketch
g. The significance of each feature, with a proposed grading following Structure Plan UCO and ARC policies.
h. Existing and/or proposed legislative and physical protection.
i. Current and proposed use/enhancement.
j. Bibliographical references.
k. Name of surveyors and date of compilation.

3.2. Statutory Protection

Reference shall be made to local heritage conservation legislation, international conventions and charters, Structure Plan policies, Local Plans, Scheduling and other relevant documents related to the protection of cultural heritage.

3.3. Description and Assessment of Impacts

All significant impacts and risks posed by the proposed project, **both during construction and during operation**, shall be assessed. The impacts may include:

a. Visual impact on the cultural landscape; and
b. Impact on the heritage assets and archaeological remains (whether on the surface of buried).

3.4. Mitigation Measures

This should include a description of the measures envisaged to prevent, minimise and where possible offset any significant adverse effects on the cultural heritage assets and their setting by the project, (including reference to consideration of alternatives). Such measures could include technological features; operational management techniques; enhanced site planning and management; aesthetic measures; conservation measures; reduction of magnitude of project; and health and safety measures.

3.5. Monitoring

A long-term monitoring programme of the impacts of the development on the cultural heritage assets and their setting shall be proposed. This shall include data gathering on the quality and progress of critical heritage features identified in the previous section, and spot checks. Therefore the following are required:

a) A monitoring programme during any necessary scientific archaeological investigations, provided official written consent is obtained from the Superintendence of Cultural Heritage;
b) A monitoring programme during construction; and
c) A monitoring programme during operation.

4. Academic Competence

The survey and report shall be undertaken by suitably qualified person/s holding a degree in archaeology.

MEPA
PTOTECTIVE INVENTORY OF THE MALTESE CULTURAL HERITAGE
HERITAGE DATA CAPTURE SHEET

Ref. No.

Location	Category	Type	Site Location (Address)

Eastings	Northings	Feature	Period - Year

S.S. No. 1 **S.S. No. 2**

S.S. No. 3 **S.S. No. 4**

Description

Date

Neg. No. **Film No.**

Present Utilization

Existing Legal Protection	GN. Number	GN. Date

Comments

Buffer Zone	A	B	C	D	E	Others
Eastings						
Northings						

Site Map

Scale 1 : 2500

Archaeological Characteristics – Sketch/Scaled drawings:	
Condition:	**Degree of Protection (Structure Plan policies UCO7 or ARC 2):**
State of Security:	**Proposed Utilization:**
Basic Bibliography:	
Compiled by: **Checked by:** **Date:**	**Revised by:** **Checked by:** **Date:**