



FONDAZZJONI GĦALL-
**PATRIMONJU KULTURALI
TA'-ARĊIDJOĊESI TA' MALTA**

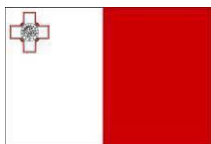
REFERENCE NUMBER: PA.5.0103/32

Tender for the structural works on St Mary's Chapel, in Zejtun

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Tender Opening: 30/11/2022 At 09:30am CET



Operational Programme I – European Structural and Investment
Funds 2014-2020 –

*"Fostering a competitive and sustainable economy to meet our
challenges"*

Project part-financed by the European Regional Development Fund
Co-financing rate: 80% European Union; 20% National Funds



Bid Bond requirements for this tender: Not Applicable

Fondazzjoni għall-Patrimonju Kulturali ta' l-Arcidiocesi ta' Malta

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SECTION 1 - INSTRUCTIONS TO TENDERERS

1. General Instructions

1.1

In submitting a tender, the tenderer accepts in full and in its entirety, the content of this tender document, including subsequent Clarifications issued by the Non Governmental Organisation (NGO), whatever the economic operator's own corresponding conditions may be, which through the submission of the tender is waived. Tenderers are expected to examine carefully and comply with all instructions, forms, contract provisions and specifications contained in this tender document. These Instructions to Tenderers complement the General Rules Governing Tenders for NGOs Version 1.0.

No account can be taken of any reservation in the tender in respect of the procurement documents; any disagreement, contradiction, alteration or deviation shall lead to the tender offer not being considered any further.

Prospective tenderers must submit their offer by depositing it in the tender box, located at Fondazzjoni għall-Patrimonju Kulturali ta' l-Arcidiocesi ta' Malta, Archbishop's Curia, St Calcedonius Square, Floriana FRN 1535 MALTA. Any references in the tender document or tender forms to uploading of tender documentation and forms is to be ignored. **Tenderers must submit one original tender offer as well as a soft copy on a USB (soft copies of the tender offers submitted on CD are strictly not acceptable).** Furthermore in the soft copy of the tender offer, Tenderers must submit the Bill of Quantities duly filled in, in excel format apart from a scanned copy of the filled in Bill of Quantities. It is important that the full tender bid package is provided in soft copy given that due to Covid 19 pandemic, utilisation of the soft copy will be highly required throughout the evaluation process. Tender reference number and tender title must be clearly indicated on the sealed bid. Prospective tenderers take full responsible to submit their offer by the set tender submission deadline.

Note:

Where in this tender document a standard is quoted, it is to be understood that the Contracting Authority will accept equivalent standards. However, it will be the responsibility of the respective bidders to prove that the standards they quoted are equivalent to the standards requested by the Contracting Authority.

- 1.2 The subject of this tender is the structural works on St Mary's Chapel, in Zejtun. The objective of this Work is to include structural interventions necessitated to prevent any further damage to this small chapel.
- 1.3 The place of acceptance of the works shall be the Archdiocese of Malta, Pjazza Kalcidonju, Floriana, the time-limits for the execution of the entire contract shall be 26 weeks from the Order to Start Works, and the INCOTERM²⁰¹⁰ applicable shall be **Delivery Duty Paid (DDP)**.
- 1.4 The Estimated Procurement Value for this Call for Tenders has been based on comprehensive research including appropriate financial analysis. In the context of this procurement, the Estimated Procurement Value, based on market research, is that of €117,000 excluding VAT.

The purpose of this value shall be the guidance of prospective bidders when submitting their offer and is not to be considered as a binding capping price.

Therefore, the published Estimated Procurement Value is not restrictive and final on the Contracting Authority. Economic Operators are free to submit financial offers above or below the Estimated Procurement Value. **However**, the Contracting Authority reserves the right to accept or reject Financial Offers exceeding the Estimated Procurement Value

- 1.5 This is a bill of quantities contract.
- 1.6 This call for tenders is being issued under an open procedure.
- 1.7 The beneficiary of this tender is **Fondazzjoni għall-Patrimonju Kulturali ta' l-Arcidiocesi ta' Malta**.
- 1.8 This tender is not a reserved contract.

2. Timetable

2.

	DATE	TIME
Clarification Meeting/Site Visit (Refer to Clause 6.1)	N/A	N/A
Deadline for request for any additional information from the NGO Clarification requests should be addressed to: NGOs e-mail address fond.pkam@gmail.com	11/11/2022	17.00 CEST
Last date on which additional information can be issued by the NGO	21/11/2022	20.00 CEST
Deadline for submission of tenders (unless otherwise modified in terms of Clause 10.1 of the General Rules Governing Tendering for NGOs)	28/11/2022	09:00 CEST
Tender Opening Due to the Covid-19 Pandemic tender opening session will take place 30/11/2022 and general public will not be allowed to attend physically. Tenderers are to leave their email address when submitting the tender and a TEAMS invitation will be sent to the bidders to connect should they wish to witness the tender opening session.	30/11/2022	09:30 CET

* All times Central European Time (CET) / Central European Summer Time (CEST) as applicable

3. Lots

- 3.1 This tender is not divided into lots, and tenders must be for the whole of quantities indicated. Tenders will not be accepted for incomplete quantities.

4. Variant Solutions

- 4.1 Variant solutions are not permissible.

5. Financing

The project is *co-financed* by the European Union, in accordance with the rules of *Operational Programme I - European Structural and Investment Funds 2014-2020* programme

5.1

5.2 The Contracting Authority of this tender is **Fondazzjoni għall-Patrimonju Kulturali ta' l-Arcidiocesi ta' Malta**.

6. Clarification Meeting/Site Visit/Workshop

6.1 No clarification meeting will be held.

Meetings between economic operators and the NGO, other than that provided in this clause during the tendering period are not permitted.

7. Selection and Award Requirements

In order to be considered eligible for the award of the contract, economic operators must provide evidence that they meet or exceed certain minimum criteria described hereunder.

(A) Eligibility Criteria

Economic Operators are to complete the Eligibility Section through the ESPD and the necessary documents as follows: ^(Note 2)

- (i) No Bid Bond is required.
- (ii) Declare agreement, conformity and compliance with the General Rules Governing Tenders for NGOs. ^(Note 2A)
- (iii) Declare agreement, conformity and compliance with the provisions of the Statement on Conditions of Employment by completing and submitting the form with title Statement on Conditions of Employment. ^(Note 2A)
- (iv) Power of Attorney (if applicable) ^(Note 2A)
- (v) Data on Joint Venture/Consortium (where applicable) ^(Note 2A)
- (vi) Submission of the declaration form that stipulates that following signature of contract, the successful bidder, will provide evidence in respect of the requirements stipulated regarding Energy Efficiency through the Energy Efficiency Form (if applicable) ^(Note 2A) Not applicable.

(B) Exclusion (including Blacklisting) and Selection Criteria - information to be submitted through the completion of the following declaration forms:

- (i) Declaration concerning exclusion grounds ^(Note 2A)
- (ii) Declaration concerning *Selection Criteria* ^(Note 2A)

(C) Technical Specifications

- (i) Tenderer's Technical Offer in response to specifications. Tenderer's Technical Offer shall constitute the following:

1. KEY EXPERTS: ^(Note 2A)

Key Experts Form, the Self-declaration form for Key Experts relating to public employees (where applicable) the CVs, copy of warrant/s and documentation confirming the MQF level (or equivalent) of the qualification of the respective key expert must be submitted at tender bis submission stage. ^(Note 2A)

The following Key Experts are required:

- a) Key Expert 1: **Perit** who will assume all the responsibility in terms of the legal obligations as arising under Maltese law (Warrant Nos to be provided)
- b) Key Expert 2: **Restoration Technician** (*MQF level 4 qualification or equivalent in restoration works of a similar nature*);
- c) Key Expert 3: Licenced Stone Mason;
- d) Key Expert 4: **Resident Site Manager** (MQF level 4 in related area of study) responsible for the works - to oversee and co-ordinate the works with the Supervisor in charge of the project. He or she shall act as a single point contact for the duration of works and must be on site at all times during the works. This key expert must fill in the Statement of Availability and Exclusivity;
- e) Key Expert 5: A **Quantity Surveyor** (MQF level 4 in Construction or Civil Engineering or Quantity Surveying) responsible for the measurement of the works.
- f) Key Expert 6: Accredited **Health & Safety Officer**;

(ii) **2. Tenderer's Technical Offer** which shall consist of: ^(Note 3)

- g) Tender Technical Offer Declaration Form signed by the bidder ^(Note 3). **(Note: Submission of an unsigned declaration form or a modified declaration form will automatically invalidate the tender bid).**
- h) A Construction Management Plan: A site management plan taking into account the specifications, general site management practices, and the general health and safety procedures indicated in the tender specifications. ^(Note 3)
- i) Work methodology: Outline the work methodology to be adopted in all works according to the tender's technical specifications. ^(Note 3)
- j) A Risk Assessment: A preliminary risk assessment and outline of the health and safety procedures that the tenderer intends to implement for the duration of the works. These documents shall act as a basis for more detailed reports prior to commencement of works by the winning bidder. ^(Note 3)
- k) A Gantt Chart: Programme of Works as outlined in the Works Tenderer Technical Questionnaire. The implementation period for this tender is 26 weeks from order to start works. ^(Note 3)

(iv) **Literature** as per Form marked 'Literature List'.

No changes to the information provided in the Literature submitted will be allowed. Literature submitted shall be rectifiable only in respect of any missing documents. ^(Note 2B)
NOT APPLICABLE AS NO LITERATURE LIST IS REQUESTED AT BIDDING STAGE.

(v) **Samples** as per section in Form marked 'Sample List' may be requested during the evaluation stage to supplement the technical offer submitted. If requested, the Samples must be submitted within 10 working days of being notified to do so. ^(Note 3) - NOT APPLICABLE

(D) Financial Offer

- (i) The Tender Form and Tenderer's Declaration are to be completed by the bidder and submitted with the offer; ^(Note 3)
- (ii) A financial offer is to be submitted by filling in the Bill of Quantities which has been issued with the tender (the locked version issued with the tender is to be used), and is to be calculated on the basis of Delivered Duty Paid (DDP)²⁰²⁰ (Grand Total) for the works tendered. ^(Note 3)

Notes to Clause 7:

1. Tenderers will be requested to clarify/rectify, within five (5) working days from notification, the tender guarantee only in the following four circumstances: incorrect validity date, and/or incorrect value, and/or incorrect addressee and incorrect name of the bidder. Rectification in respect of the Tender Guarantee (Bid Bond) is free of charge.

2. A) Tenderers will be requested to either clarify/rectify any incorrect and/or incomplete documentation, and/or submit any missing documents within five (5) working days from notification.

B) Tenderers will be requested to rectify/submit only missing documents within five (5) working days from notification. No changes to the information provided in the Literature submitted will be allowed. Literature submitted shall be rectifiable only in respect of any missing information.

All Rectifications are free of charge.

3. No rectification shall be allowed. Only clarifications on the submitted information may be requested.

Request for Clarification and /or rectifications concerning a previous request dealing with the same shortcoming shall not be entertained.

8. Tender Guarantee (Bid bond)

- 8.1 No tender guarantee (bid bond) is required.

9. Criteria for Award

- 9.1 The sole award criterion will be the price. The contract will be awarded to the tenderer submitting the cheapest priced offer satisfying the administrative and technical criteria.

SECTION 2 - EXTRACTS FROM THE PUBLIC PROCUREMENT REGULATIONS

Part X of the Public Procurement Regulations

270. Any tenderer or candidate concerned, or any person, having or having had an interest or who has been harmed or risks being harmed by an alleged infringement or by any decision taken including a proposed award in obtaining a contract, a rejection of a tender or a cancellation of a call for tender after the lapse of the publication period, may file an appeal by means of an objection before the Review Board, which shall contain in a very clear manner the reasons for their complaints.

271. The objection shall be filed within ten calendar days following the date on which the NGO has by fax or other electronic means sent its proposed award decision or the rejection of a tender or the cancellation of the call for tenders after the lapse of the publication period.

272. The communication to each tenderer or candidate concerned of the proposed award or of the cancellation of the call for tenders shall be accompanied by a summary of the relevant reasons relating to the rejection of the tender as set out in regulation 242 or the reasons why the call for tenders is being cancelled after the lapse of the publication period, and by a precise statement of the exact standstill period.

273. The objection shall only be valid if accompanied by a deposit equivalent to 0.50 per cent of the estimated value set by the NGO of the whole tender or if the tender is divided into lots according to the estimated value of the tender set by the NGO for each lot submitted by the tenderer, provided that in no case shall the deposit be less than four hundred euro (€400) or more than fifty thousand euro (€50,000) which may be refunded as the Public Contracts Review Board may decide in its decision.

274. The Secretary of the Review Board shall immediately notify the Director and/or the NGO as the case maybe that an objection had been filed with his authority thereby immediately suspending the award procedure.

275. The NGO involved, as the case may be, shall be precluded from concluding the contract during the period of ten calendar days allowed for the submission of appeals. The award process shall be completely suspended if an appeal is eventually submitted.

276. The procedure to be followed in submitting and determining appeals as well as the conditions under which such appeals may be filed shall be the following:

- (a) any decision by the General Contracts Committee or the Special Contracts Committee or by the NGO shall be made public by affixing it to the notice-board of the same NGO as the case may be or by uploading it on Government's e-procurement platform prior to the award of the contract if the call for tenders is administered by the NGO;
- (b) the appeal of the complainant shall also be affixed to the notice-board of the Review Board and shall be communicated by fax or by other electronic means to all participating tenderers;
- (c) the NGO and any interested party may, within ten calendar days from the day on which the appeal is affixed to the notice-board of the NGO and uploaded where applicable on the Government's e-procurement platform, file a written reply to the appeal. These replies shall also be affixed to the notice-board of the Review Board

and where applicable it shall also be uploaded on the Government's e-procurement platform;

- (d) within three working days of the publication of the replies, the Secretary of the Review Board shall prepare a report (the Analysis Report) analysing the appeal and any reply to it. This report shall be circulated to the persons who file an appeal and to all parties who submitted a reply to the appeal;
- (e) after the preparatory process is duly completed, the Director or the Head of the NGO shall forward to the Chairman of the Review Board all documentation pertaining to the call for tenders in question including files, tenders submitted, copies of deposit receipts and any motivated letter;
- (f) The secretary of the board shall inform all the participants of the call for tenders, the NGO of the date or dates as the case maybe when the appeal will be heard;
- (g) When the oral hearing is concluded, the Public Contracts Review Board, if it does not deliver the decision on the same day, shall reserve decision for the earliest possible date to be fixed for the purpose, but not later than six weeks from the day of the oral hearing:
Provided that for serious and justified reasons expressed in writing by means of an order notified to all the parties, the Public Contracts Review board may postpone the judgment for a later period.
- (h) The secretary of the board shall keep a record of the grounds of each adjournment and of everything done in each sitting;
- (i) After evaluating all the evidence and after considering all submissions put forward by the parties, the Review Board shall decide whether to accede or reject the appeal.

SECTION 3 - SPECIAL CONDITIONS

These conditions amplify and supplement, if necessary, the General Conditions governing the contract. Unless the Special Conditions provide otherwise, those General Conditions remain fully applicable. The numbering of the Articles of the Special Conditions is not consecutive but follows the numbering of the Articles of the General Conditions. Other Special Conditions should be indicated afterwards.

For the purposes of contracts issued by NGOs, the term 'approval from the Central Government Authority' shall be substituted by the term 'approval by the Head responsible for that NGO'; Furthermore, any references to the Contracting Authority throughout the General Conditions shall be deemed to be referring to the NGO responsible for that procurement.

Article 2: Law and language of the Contract

2.1 The Laws of Malta shall apply in all matters not covered by the provisions of the contract.

2.2 The language used shall be English.

Article 3: Order of Precedence of Contract Documents

The contract is made up of the following documents, in order of precedence:

- (a) the Contract;
- (b) the Special Conditions;
- (c) the General Conditions;
- (d) the Contracting Authority's technical specifications and design documentation;
- (e) the Contractor's technical offer, and the design documentation (drawings);
- (f) the bill of quantities/financial bid (after arithmetical corrections)/breakdown;
- (g) the tender declarations in the Tender Response Format;
- (h) any other documents forming part of the contract.

Addenda have the order of precedence of the document they are modifying.

Article 4: Communications

Further to the contents in the General Conditions, the communication details of the Contracting Authority are:

Fondazzjoni għall-Patrimonju Kulturali ta' l-Arcidiocesi ta' Malta
The Archbishop's Curia, Saint Calcedonious Square, Floriana
FRN 1535
Tel: 2590 6400
Email Address: fond.pkam@gmail.com

Communications between the Contracting Authority and/or the Supervisor on one hand, and the Contractor on the other, shall be exclusively in writing and in the English language. Specific and standard procedures of communication (templates of request for information, contract submittal, site instructions, time of communication and for replies, frequency of meetings) shall be agreed among the Contracting Authority and the winning bidder within fifteen (15) days from the Commencement Date of the Contract, unless otherwise specified in these Special Conditions and in Section 4 - Technical Specifications.

Article 5: Supervisor and Supervisor's Representative

- 5.6** The Contractor shall be responsible to provide all access necessary for verifying and inspecting the works carried out and the items being provided

Article 6: Assignment

- 6.1** Requests from the contractor for a change in assignment will not be allowed except in the case of force majeure which results in the Contractor being unable to carry out the tasks assigned in the contract.

Article 8: Supply of Documents

- 8.4** Any documents and drawings prepared by the Contractor are to be submitted for approval to the Contracting Authority and the Supervisor, the procedure being agreed to between the parties as indicated in Clause 4 of the Special Conditions.

Article 9: Access to Site

- 9.1** In addition to sub clause 9.1 of the General Conditions, contractors may be required to suspend all or part of the works being carried out in order not to disturb any official function or activity held as indicated by the Contracting Authority. The contractor will be notified of such suspension of works at least 48 hours in advance and will not be eligible for compensation, apart from an extension of time.
- 9.5** The contractor is to note that access to the public/private buildings shall be maintained at all times and shall maintain pedestrian and vehicular access (where applicable) at all times.
- To this effect, the contractor and his employees shall be required to abide by the instructions issued from time to time by personnel responsible for the security of the underlying/adjoining properties and shall ensure that all works are carried out without jeopardizing the security of the place.

Article 10: Assistance with Local Regulations

- 10.3** The contractor is responsible for complying with local regulations at his expense to ensure the project is compliant with all the relevant local regulations.

Article 11: The Contractor's Obligations

- 11.9** As per article 15.4 of the Special Conditions
- 11.11** Further to what is stated in the General Conditions, the requirements for Contractor's submissions are detailed in Section 4 Technical Specifications of this Tender.
- 11.14** Any delay to commence or progress with works caused by the Contractor's failure to provide, develop and update any of these documents to the satisfaction of the Supervisor and approving Authorities shall be at the Contractor's risk.
- 11.17** The Contractor, including all the subcontractors, has to comply with all the legislation and regulations concerning employment in Malta, especially the posting of Workers in Malta Regulations; and must liaise with the Department of Industrial and Employment Relations, Malta - DIER and Employment & Training Corporation - ETC, to notify about

such workers, fill in the appropriate forms and submit the required documentation; and must provide copies of such notification forms to the Contracting Authority.

- 11.20** The Contracting Authority and the Supervisor shall make available, where applicable, the tender drawings (and any subsequent revisions to such drawings) to the Contractor at the latter's request and well as any drawings required to carry out the works as the need arises. Any such drawings will remain the property of the Contracting Authority and the Contractor may not reproduce or communicate them to third parties except with the Contracting Authority's agreement.
- 11.21** Further to Article 11.2 in the General Conditions, the contractor shall deploy the necessary resources so as to maintain a good progress of work on the site and shall also, where necessary, undertake to perform works outside normal working hours, and on public holidays and weekends at no additional cost to the Contracting Authority, so as to ensure the completion of the Works within the required time-frame, in accordance with the Technical Requirements and with the Period of Execution.
- 11.22** Where applicable, the Contractor shall submit working and shop drawings, installation drawings, technical data, as-built drawings and other required information to the Supervisor when so requested and within the timeframes requested by the Supervisor. The Supervisor may liaise with the Consultant to approve or otherwise. In the case of technical information and date, the contractor shall allow a minimum of seven (7) days for the Supervisor to comment. The Supervisor may request any drawing and any other document submitted by the Contractor to be revised or replaced and the Contractor shall so revise or replace the document within the requested timeframe and at the Contractor's own expense.
- 11.23** The Contractor shall draw-up and submit all other documentation required as stipulated elsewhere in these Special Conditions, as specified in the Technical Specifications and as otherwise instructed by the Supervisor within the stipulated, specified or requested time frames.
- 11.24** The Contractor shall be obliged to follow any and all instructions issued by the Supervisor in relation to the Works in so far as these fall within the overall scope of the Contract.
- 11.25** The Contractor shall be obliged to ensure avoidance of disruption and inconvenience to the day to day business on and around the site, including the co-ordination with other contractors that may be engaged on or in the vicinity of the site, the free movement of traffic and pedestrians, except where this is absolutely unavoidable. In particular, the Contractor shall take all such precautions as may become necessary so as to avoid causing any damage to adjacent buildings or property, including public spaces, during the execution of the Works.
- 11.26** The Contractor shall also, in addition to the above, take any necessary action to ensure and maintain the health and safety of his employees, together with those of the employees of any other contractor engaged on or in the vicinity of the site, together with the general public and shall follow any relevant instructions and /or recommendations of the contractor's Health and Safety Offices and the Contracting Authority Project Supervisor to fulfil the obligations set out in the Legal Notice 281/2004 (SL 424.29)
- 11.27** In addition to other obligations arising under the Contract pertinent to the execution of the Works, the Contractor shall, following completion of same, fulfill all obligations during the Defects Liability Period as outlined in Article 58.6 of these Special conditions.
- 11.28** The Contractor shall not dismantle the scaffolding prior to the approval of the Contracting Authority's architect and civil engineer in charge. The contractor shall give the Contracting Authority's architect and civil engineer in charge at least one week notice to allow for a final inspection and the measurement of works

- 11.29** A suitable “housekeeping” programme shall be established before commencement of the project, and be continuously implemented on the Site.
- 11.30** The Contractor will be available to attend regular site, management and progress meetings.
- 11.31** The contractor binds himself to adhere to the conditions imposed in the Planning Permit, that is, the approved drawings, document and conditions imposed in Planning Permit PA Nos 10747/17 as approved by the Planning Authority. He also binds himself to follow all instructions given to him by the Superintendence of Cultural Heritage.

Article 13: Performance Guarantee

13.1 The Contractor shall, within 15 calendar days of receipt of the contract, sign and date the contract and return it together with an original copy of the Performance Guarantee to the Contracting Authority. The amount of the guarantee shall be 4% where the amount of the total contract value is between €10,000 and €500,000 exclusive of VAT. If the same Contractor has more than one contract with the Contracting Authority, then the Contractor will be allowed to submit a single bid bond in accordance with the schedule stipulated in the Tender Form.

13.3 The performance guarantee shall be in the format given in Section 5 and shall be provided in the form of a bank guarantee. It shall be issued by a bank in accordance with the eligibility criteria applicable for the award of the contract.

Furthermore, the Contracting Authority will not affect any payment to the Contractor until the performance guarantee has been submitted.

13.8 The performance guarantee shall be released within 30 days of the signing of the Provisional Acceptance Certificate including any snag lists.

Article 14: Insurance

14.1.a Without any prejudice to Article 14.1 a, b, c of the General Conditions, the contractor is required to insure for the whole duration of the contract against risk of damage to the historic fabric of the building being restored through this contract for the amount of €235,000 per accident with the number of occurrences unlimited.

14.2 Without any prejudice to 14.1 a, b, c of the General Conditions, the contractor is required to insure for the whole duration of the contract for the amount of €1,500,000 per accident with the number of occurrences unlimited against each party's liability for any loss, damage, death or bodily harm, that may be caused to third parties, or to any person that is authorized to be on site at any given time, or any damages to property belonging to third parties, including loss of profits that may be sustained by third parties.

14.3 Amount per personal injury and unlimited occurrences as specified in Article 14.2 of the Special Conditions.

Article 15: Performance Programme (Timetable)

15.1 The Contractor shall provide a detailed Programme of Works.

15.4 The Programme of Works shall be updated monthly or whenever required by the Supervisor, to be in line with the progress of the actual Works. The Programme of Works shall be accompanied by sufficient data and information together with all the necessary details of constructional plant,

required labour force, etc. The Supervisor shall approve the Programme of Works within ten (10) working days from submission by the Contractor to the Supervisor. Should the Supervisor consider any alteration in or addition to the Programme of Works as submitted, the Contractor shall conform therewith without additional cost. Any changes to the Programme of Works shall be approved by the Contracting Authority.

Article 17: Contractor's Drawings/Diagrams

17.1 The Contractor shall submit to the Supervisor for approval any drawings, documents, programme of works, technical literature, samples and /or models that the Supervisor may reasonably require for the performance of the contract within 5 working days from written request by the Supervisor or from date when meeting where minutes are taken.

Article 18: Tender Prices

18.2 The contractor will ascertain that all the respective rates have included double handling, carting away and dumping fees

18.3 The Contractor shall be deemed to have taken into account in his tender price all works, fees and costs that are necessary to complete the project and to fully hand over in operational condition.

Article 19: Exceptional Risks

19.5 Further to the provisions of Article 19.5 of the General Conditions, if the Contractor is granted an extension of time in the implementation of the works, the Contractor cannot make a request for financial compensation for extension of time.

Article 20: Safety on Site

20.2 Further to the provisions of the General Conditions, it is the obligation of contractors to carry out a suitable, sufficient and systematic assessment of all the occupational health and safety hazards which may be present at the place of work and the resultant risks involved concerning all aspects of the work activity.

20.3 Further to the provisions of the General Conditions, it is also the duty of a contractor to cooperate with other employers, contractors and, or self-employed persons who share a common work place, on the implementation of Health and Safety provisions. The contractor or his designate shall co-ordinate necessary actions in matters which concern protective and preventive measures, and shall inform all on site as well as the Health and Safety Project Supervisor regarding any potential risks.

Article 21: Safeguarding Adjacent Properties

21.1 Further to clause 21.1 of the General Conditions, the contractor shall liaise and co-operate with the appropriate Authorities and occupiers of adjoining land and buildings likely to be affected by the works, for all matters regarding access, monitoring, third party rights, and similar.

Article 22: Interference with Traffic

22.3 The Contractor is responsible to obtain necessary permits that may be required if the works impact of traffic.

Article 23: Cables and Conduits

23.3 The contractor shall be responsible for locating existing drains and services, and underground cables and pipes, for seeking instruction from the appropriate authorities as to how to deal with such services, and for carrying out any necessary work relating to deviations or protection, or any other works deemed necessary by the respective Utility or authority.

Article 25: Demolished Materials

25.1 Demolition material unless indicated otherwise in the bills of quantities and by the supervisor in charge, shall become the property of the Contractor and the carting away and dumping charges are at the expense of the Contractor.

25.4 Further to article 25.4 of the General conditions, the contractor shall also take care to dispose of the waste material fully at his expenses and in an appropriate and environmentally friendly manner.

Article 26: Discoveries

26.2 Further to provisions of Article 26.2 of the General Conditions, the Contractor shall observe the provisions set out in the Cultural Heritage Act 2002 (CAP 445) at all times.

26.3 Further to the provisions of Article 26.3 of the General Conditions, any in filled fissures, caverns, reservoirs/cisterns, hollows, Quaternary deposits, or other features of geological, geomorphological, hydrological, palaeontological interest which are discovered must be reported immediately to the Superintendence of Cultural Heritage. The contractor shall halt the works and follow all instructions given by the Supervisor to protect or to investigate further the discovery.

The Contractor shall co-ordinate and co-operate with the Supervisor appointed by the Contracting Authority with the Local Authorities at all times.

Article 28: Soil Studies

28.1 As per General Conditions of the Contract

Article 30: Patents and Licences

30.1 As per Article 30 of the General Conditions

Article 31: Commencement Date

31.1 The Commencement Date for this contract shall be 1 week from the Order to Start Works. The performance of the contract is to commence on order to start works. The order to start works will not be issued later than two (2) months from the last date of signature shown on contract.

No works however will be allowed to commence on site unless the Contractor has furnished the Contracting Authority with a certified true copy of the Insurance Policy together with all documentation related to Health and Safety as well as the performance guarantee.

Article 32: Period of Execution of Tasks

32.1 The period of performance of this contract shall be 26 weeks from the Commencement indicated in the Order to Start Works.

The contractor will be expected to commit sufficient resources to carry out works on more than one

area at the same time, to guarantee the on time completion of all the Works as specified in this tender.

Article 33 Extension of the Period of Execution of Tasks

33.4 Further to the provisions of Article 33 of the General Conditions, should the Contractor be granted an extension of the period of execution of the tasks that are the subject of this contract, the Contractor cannot make a claim for financial compensation for such extension in the period of execution of the tasks of the contract.

Article 34: Delays in Execution

34.1 Any delay in performance from the approved programme of works for this contract, will be charged 0.1% of the contract value per calendar day of delay up to a maximum of 20% of the contract value.

Upon reaching the maximum penalty, the Contracting Authority reserves the right to terminate the contract and seek the services of a third party for the completion of works.

Article 35: Modification to the Contract

35.8 The Contracting Authority has a right to increase - the total amount of works of a similar nature by a maximum of 30% of the contract value which have become necessary for the purpose of achieving the scope of the contract. These inter alia include the detection of unidentified works evident only once the interventions have commenced such as the repetition of cleaning interventions due to stubborn dirt, the repetition of the application of biocides and herbicides, the consolidation, pinning, repair, stone replacement and re-pointing of areas of the stone fabric. Such works would be resulting from close inspection of works accessible only upon erection of scaffolding or exposed during the course of the works.

35.9 The Contracting Authority will have the right to instruct additional works up to a maximum of 20% of the contract value which have become necessary for the purpose of achieving the scope of the contract. Such works would be resulting from close inspection of works accessible only upon erection of scaffolding or exposed during the course of works. These inter alia include works evident only once the interventions have commenced such as the alternative cleaning and plastering interventions, the application of alternative treatment and utilization of other materials other than those envisaged in the tender specifications that may be required.

35.11 The provisions provided for in Article 35.11 of the General Conditions shall not be applicable to this contract.

35.12 The provisions provided for in Article 35.12 of the General Conditions shall not be applicable to this contract.

35.13 The provisions provided for in Article 35.13 of the General Conditions shall not be applicable to this contract.

Article 37: Work Register

37.1 The Contractor shall maintain a Work Register (Work Diary) on the site, containing detailed daily reports in the template specified and/or approved by the Contractor's representative (either the Construction/Project Manager or the Site Manager) and approved by the Supervisor, including at least the following information:

- (a) weather conditions, interruptions of work owing to inclement weather, hours of work, number and type of workmen employed on the site, materials supplied, equipment in use, equipment not in working order, tests carried out in situ, samples dispatched, unforeseen circumstances, safety, health and welfare of persons and damage to property, progress of the Works, as well as progress of the Works orders given to the Contractor;
- (b) detailed statements of all the quantitative and qualitative elements of the work done and the supplies delivered and used, capable of being checked on the site and relevant in calculating payments to be made to the Contractor;
- (c) photographic records of the interventions as well as the state of the structures to be restored through this tender prior to the commencement of works. The photographs shall include records of any archaeological, historical, etc evidence discovered during the course of works; detailed mapping of all interventions carried out. The interventions shall be carefully mapped out in conformity to approved standards and conventions as agreed with and approved by the Supervisor in charge. This mapping shall be submitted to the Architect and Civil Engineer in charge/or Supervisor in digital format (Version ACAD 2009 or compliant) and 2 colour printed copies; copies of method statement reports, construction management plans and updated programmes of works as specified in this document and approved by the Supervisor.

This Work Register shall be made on daily basis and take the form of a bound document with an original and two copies for each day. The original shall be filled out by the Contractor, who shall sign it, then reviewed by the supervisor, who shall add his comments, if necessary, and countersign it. One copy shall be kept by the supervisor for its own record.

Entries made in the work register as work progresses shall be signed by the Contractor and countersigned by the Supervisor or his representative. When the Supervisor reviews each page, he shall add his comments if necessary, to draw attention to deficiencies in the Works or to give warning of difficulties that may arise from the Contractors method of working. He may also instruct in this Work Register that work shall stop in certain circumstances and the Contractor shall take appropriate action immediately. Such instructions shall be followed up by Administrative Orders. If the Contractor objects, he shall communicate his views to the Supervisor within 15 days following the date on which the entry or the statements objected to are recorded. Should he fail to countersign or to submit his views within the period allowed, the Contractor shall be deemed to agree with the notes shown in the register. The Supervisor may examine the work register at any time and may make or receive a copy of entries which he considers necessary for his own record.

Article 38: Origin

38.1 No derogation to the rules of origin is authorised.

Article 39: Quality of Works and Materials

39.2 All designs, components, materials, and restoration interventions/methodologies shall be submitted to the Supervisor for written preliminary technical approval, prior to their implementation or procurement. All requests and documentation must be submitted with 10 calendar days prior to execution of works on site.

Article 40: Inspection and Testing

40.2 As specified in the General Conditions.

Article 42: Ownership of Plants and Materials

42.2 All equipment, temporary works, plant and materials on site owned by the Contractor or by any company in which the Contractor has a controlling interest shall, for the duration of the execution of the works be:

- a) Vested in the Contracting Authority.

Article 43: Payments: General Principles

43.1 Payments will be made in Euro.

Payments shall be authorized by the Contracting Authority, and paid by the Treasury Department.

Payment Schedule		
Pre-financing Payment	As per 44.1 of Special Conditions	10% of contract value
Interim Payments	As per measured works	85% of contract value
Retention Monies	As per payment schedule in Clause 45.2 of the Special Conditions	5% of contract value

43.3 As per General Conditions.

Article 44: Pre-financing

44.1 Pre-financing to the Contractor of 10% of the contract value excluding the cost of maintenance items in the BOQ, shall be obligatory.

44.2 Pre-financing amounting to 10% of the contract value shall be granted to the Contractor against the provision of a bank guarantee by Contractor in favour of the Contracting Authority of the equivalent amount.

44.3 Further to Article 44.3 of the General Conditions, the Contractor shall present to the Contracting Authority, within forty five (45) days of the signing of the contract, a bank guarantee of the amount equivalent to 10% of the contract value for the Contracting Authority to release the pre-financing payment of the same amount.

44.8 The pre-financing payment shall be repaid through percentage deductions in payment certificates as follows:

(a) Advance payment equivalent to 10% of the contract value:

- Deductions shall commence in the payment Certificate in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 10% of the Accepted Contract Amount; and
- Deductions shall be made at the amortisation rate of 10% of the cumulative amount of each payment certificate (excluding advance payment and deductions and repayments for retention) in the currency and proportions of the advance payment, until such time as the advance payment has been repaid in full; and
- With every 25% of the pre-financing amount being amortised, the Contracting Authority may authorize the relevant financial institution to release the

equivalent 25% from the pre-financing guarantee granted in terms of Article 44.3 of these Special Conditions. Thus, the pre-financing guarantee shall decrease proportionately throughout execution of the contract.

Article 45: Retention Monies

45.2 The sum of money retained from the interim payments shall be of 5%. This sum shall be paid upon submission of an equivalent retention bank guarantee (issued in the form provided in this tender document) by the Contractor to the Contracting Authority when issuing the Provisional Acceptance Certificate as specified in Article 57. The bank guarantee will be released upon issuing of the final acceptance of the works as per Article 58. The said retention guarantee shall be released only after the conditions requested under Art 58 are satisfied. The retention guarantee will be released within 45 days from when the Final Acceptance Certificate is issued.

Article 46: Price Revision

46.1 Tender prices are fixed and not subject to revision with the exception of that resulting from causes listed under Article 46.3 of the General Conditions.

46.3 As per General Conditions

Article 47: Measurement

47.2 The works shall be measured as detailed in the Bill of Quantities, and as specified in the appropriate clauses in the Technical Specifications - Section 4. The appointed contractor shall satisfy the Supervisor that the materials are such as specified or equivalent.

Article 48: Interim Payments

48.1 Interim Payments of sums due for the executed and provisionally accepted works shall be authorized by the Contracting Authority and payment will be issued by the Treasury Department within the Ministry of Finance paid against a valid invoice after works in accordance to quality and progress of works. The retention shall be released in accordance to Clause 45.2 of these special conditions. The Contractor shall submit his claim for progress payments to the Contracting Authority in writing. Such claims are to be supported by evaluation of the works executed and materials installed on site and show the value of the permanent works executed by him up to the end of the month. All claims shall be evaluated by the Contracting Authority in relation to the Bills of Quantities and Contract Rates and documentation produced by the Contractor and on the basis that such works have been executed in accordance with the Contract Documents and to the satisfaction of the Contracting Authority. Provided the Contracting Authority agrees with the statement, the relevant Payment Certificate will be issued.

Article 50: Delayed Payments

50.1 The Contracting Authority shall pay the contractor sums due within 60 days of the date on which an admissible payment is registered, in accordance with Article 43 of these Special Conditions. This period shall begin to run from the approval of these documents by the competent department referred to in Article 43.1 of these Special Conditions. These documents shall be approved either expressly or tacitly, in the absence if any written reaction in the 30 days following their receipt

accompanied by the requisite documents.

50.2 Once the deadline laid down in Article 50.1 has expired, the Contractor may, within two months of late payment, claim late-payment interest:

- at the rediscount rate applied by the issuing institution of the country of the Contracting Authority;

on the first day of the month in which the deadline expired, plus two percentage points (2%). The late-payment interest shall apply to the time which elapses between the date of the payment deadline (exclusive) and the date on which the Contracting Authority's account is debited (inclusive).

Article 53: End Date

The contract will be co-financed through the European Regional Development Fund 2014-2020.

Article 56: Partial Acceptance

56.2 The supervisor will issue partial provisional acceptance upon completion of full works on the structure envisioned within the contract and not upon completion of works on parts of the structure envisioned within the contract.

56.3 The maintenance period shall run from the date of the Provisional Acceptance Certificate issued as per Article 57.

Article 57: Provisional Acceptance

57.6 Further to the provisions of Article 57 of the General Conditions, the Provisional Acceptance Certificate can only be issued once all pending snags included in the relevant snag list are appropriately addressed by the Contractor and to the satisfaction of the Supervisor.

Article 58: Maintenance Obligations

58.6 Further to the provisions of Article 58 of the General Conditions, the contractor shall guarantee that works carried out through works specified in this tender document are adequately maintained for a period of 24 months from issuing of the Provisional Acceptance Certificate. The Contractor shall be responsible for remedying, at his expense, defects and damages during this period as specified in the General Conditions.

Any remedial works performed during the guarantee period (until 24 months after completion of ALL works described in this contract) shall be carried out as specified in this document and approved by the Supervisor. The contractor shall be responsible for providing all suitable means, for obtaining all permissions, and making all the necessary arrangements with all authorities concerned to carry out all the remedial works at any height levels at no extra cost to the Contracting Authority.

Article 66: Dispute Settlement by Litigation

If no settlement is reached within 120 days of the start of the amicable dispute-settlement procedure, each Party may seek:

- a) either a ruling from a national court, or
- b) an arbitration ruling, in the case where the parties, i.e. the Contracting Authority and the Contractor, by agreement decide to refer the matter to arbitration.

Article 70: Further Additional Clauses

70.1 The Supervisor will organise project management meetings (which may be held in person or on-line) and site meetings. The Contractor's representative must also attend these meetings in order to review the arrangements of future work. The Supervisor shall record the business of these meetings and supply copies of the record to those attending the meeting and Contracting Authority. In the record, responsibilities for actions to be taken shall be in accordance with the contract.

The Contractor's Key Experts must also attend these meetings when requested by the Supervisor and/or the Contracting Authority. The Supervisor shall notify the Contractor of the requirement of a particular Key Expert's attendance at least three (3) days prior to the meeting. The Contractor shall become liable to a penalty of €100 (one hundred euro) for each occurrence in which a Key Expert fails to attend meetings. Such penalties will be deducted from the next interim payment due.

70.2 Following the issue of an administrative order by the Supervisor, the Contractor shall execute the administrative order within the specified deadline. Without prejudice to other penalties which may be due in terms of the Contract, if the Contractor fails to respect the specified deadline for the respective administrative order, Contractor shall be liable to a penalty for mere delay in execution of the administrative order in the amount of €100 (one hundred euro) for each calendar day following the deadline until Supervisor certifies the completion of the administrative order, which penalty shall be deducted from the next interim payment.

70.3 The Contractor shall be liable to a penalty of €2,000 (two thousand euro) if he fails to abide with any of the conditions of permits for works issued by ERA [Environment and Resources Authority], the PA [Planning Authority] and the BRO [Building Regulation Office] or any other Malta Government Authority and related to or in connection with this contract. This penalty shall be applied for each occurrence where the result of the non-compliance is irreversible. In case the effects and results of the non-compliance are reversible the contractor shall be liable to a penalty of €1,000 per calendar day commencing from the deadline set by the Supervisor to complete the remedial works. The reversibility of the breach of permit conditions shall be determined by the Supervisor. The penalties in this Article shall apply without prejudice to the other penalties that may be issued by the Planning Authority and/or other Governmental Entities. Penalties will be deducted with the next interim payment due.

SECTION 4 -SPECIFICATIONS/TERMS OF REFERENCE (Note 3)

Note:

Where in this tender document a standard is quoted, it is to be understood that the Contracting Authority will accept equivalent standards. However, it will be the responsibility of the respective bidders to prove that the standards they quoted are equivalent to the standards requested by the Contracting Authority.

A. Preliminaries/ general conditions

A10 Scope of work

100. Scope of Work

- i. The objective of this Work is to include structural interventions necessitated to prevent any further damage to this small chapel dedicated to Saint Mary at Misrah Santa Marija, Zejtun. It is therefore of primary concern that all operations be carried out with a full respect to all parts of the Chapel and the environs. This will apply to how materials are handled, how they are stored, how water is disposed of, how tools are used on the historic fabric and how mechanical plant is handled and used.
- ii. The right is reserved to stop any operation that is deemed by the Engineer to be insufficiently respectful of the historic fabric, and order the making good of any consequential damage at the cost of the Contractor.
- iii. The right is reserved to amend the construction details further to the discovery of historical documents and information relating to the original construction methodology and details.

A20 General Site Management Practice

101. General

- i. The Contractor shall ensure that all protective measures deemed necessary by the Engineer are adopted and no damage is caused to the church fabric, the parvis and surrounding areas.
- ii. All works on site have to be carried out as per regulations outlined in Environmental Management Construction Site Regulations, 2007 (L.N. 295 of 2007 - Development Planning Act (CAP. 356) and Environment Protection Act (CAP. 435))
- iii. The Contractor shall report to the Engineer the uncovering of any particular remains or architectural features or other such parts of the

fabric, artefacts or other items that might be of interest, and any works in the area halted.

- iv. The Contractor will await instructions from the Engineer on the best possible way to carry on with the work.

102. Site Manager

- i. The owner shall have the obligation to appoint a 'Site Manager' who shall be responsible, on behalf of the owner, to ensure that the construction site and its construction activities are in conformity with all the provisions of these regulations.

103. Name board

- i. The Contractor shall erect a temporary name-board, at least 1.5 metres by 2.5 metres, including all the information as specified in the Environmental Management Construction Site Regulations, 2007
- ii. This shall be erected/installed, on the street boundary, three weeks before the commencement of any works
- iii. The information on the board shall include the development permit number, the particulars of the "Owner", Site Manager" and "Perit" in charge and the contractor or contractors including their telephone numbers, the start date; and dates of completion of the principal stages of the project.
- iv. The design of the name-board shall be subject to the approval of the Engineer and the Employer with the details legible from the road level with a minimum font size of 100 point.
- v. The name-board shall be of a material suitable to resist the effects of the weather for the duration of the Works, or until such time as deemed appropriate by the Authority
- vi. and shall be securely fixed.
- vii. This billboard shall be placed in a location as agreed with the Engineer and in such a way that it does not obstruct or hinder the safety and easy flow of traffic pedestrians and general public and shall be governed by any permits applicable thereto.
- viii. A copy of the development permit and its renewal or renewals if any, together with copies of all plans and elevations as approved, shall be kept on site and the same shall at all reasonable times be available for inspection and use by the Enforcement Officers.

Environmental Management Construction Site Regulations			
Template for Notice Board / Billboard as stipulated by Schedule I, Paragraph I			
DEVELOPMENT TITLE			
PERMIT NUMBER		CONSTRUCTION COMMENCEMENT DATE	
NAME OF SITE MANAGER		24 HOUR CONTACT NUMBER	
LEAD CONTRACTOR			
OTHER CONTRACTORS:	<i>Insert name of contractor 2</i>	<i>Insert name of contractor 3</i>	<i>Insert name of contractor 4</i>
PERIT/FIRM OF PERITI <i>Address & Contact Details</i>	OWNER <i>Address & Contact Details</i>	OHSA Health & Safety Officer <i>Contact Details</i>	
In case of difficulty kindly contact the Local Council on telephone number:			

Figure 1. Template of information board to be installed on site. Extract from Environmental Management Construction Site Regulations, 2007.

104. Construction Management Plan

- i. The Contractor shall submit a detailed Construction Management Plan with the tender offer, taking into account the specifications, general site management practices, and the general health and safety procedures indicated below.
- ii. The Contractor shall abide strictly with all instructions or guidelines issued by the Malta Environment and Planning Authority, the Ordinance Health and Safety Authority, the Traffic Control Board, the Police, and other relevant authorities, in connection with site management, construction traffic, environmental protection, and all other aspects concerning the construction process. For this purpose, the Contractor shall be required to have a permanent representative on site, authorised to receive instructions and to act upon them.

105. Environment Considerations

- i. The Contractor shall be required to appoint a 'Site Manager' as stipulated in the 'Environmental Management Construction Site Regulations', who will ensure that all environmental related issues are addressed and regulations abided to, and who will also maintain constant contact with PA and its monitors, as well as with the Engineer.
- ii. The Contractor shall take all necessary procedures to control energy use on site. Site lighting shall be, as much as possible, low energy, or energy-efficient, light fixtures shall be downward pointing and shielded to avoid unnecessary light loss and light pollution.
- iii. The Contractor shall erect hoarding, made of suitable rigid material, covered with a suitable mesh or material that precludes any visual impact of the internal on-goings within the site, up to the full height of the building.
 - All works shall be contained within the hoarding

- Such hoarding shall be designed in a manner that entirely conceals the site and the screen shall provide a barrier to protect adjacent areas from the egress of dust and from falling materials from within the site to the surrounding environment
 - The hoarding shall, as a minimum, be erected in a manner that ensures that it extends to at least one metre above the highest level of the building as measured in the vertical plane.
 - The hoardings shall be designed to withstand up to gale wind loads (Force 8 and above) with any anchorage as necessary to prevent overturning and ensure stability.
 - The hoardings and barricades must be in good condition to fulfil their purpose;
 - Advertisements on the hoardings shall be allowed subject to advertising laws and regulations.
- iv. The Contactor shall take all necessary dust control measures. These shall include:
- prior to leaving the site, the Contractor shall, on a daily basis, remove any spillages resulting from the construction activity along or across a public way
 - prior to leaving the site, the Contractor shall sweep and vacuum public sidewalks and public areas within 10 metres from either side of the extremities of the work site, including sidewalks and roads
 - paint chips, sanding residue, grit and dust must be prevented from coming into contact with storm-water runoff and surface water bodies.
 - The cutting of stones (and bricks) shall be allowed on site provided that all machinery and tools, excluding the band saw, shall be equipped with dust extraction and recovery systems, to ensure that dust is not dispersed onto public areas and third party property; and where not possible to carry out such operations internally, stone (and brick) cutting shall be carried out in a temporary enclosed impermeable structure erected on the construction site.
 - When undertaking any sanding activity, the Contractor shall control the dust emissions by equipping all mechanical equipment with dust extraction and recovery systems; in combination with the covering, all around, the whole working area with material that must form a barrier against the emission of dust or particulate matter into the environment;

106. Permissible hours of work

- i. The permissible hours of work for construction works where noise generated from that activity can be heard from outside the site boundary shall be as follows:
- Construction shall not commence before 7.00 am and shall cease at 8.00 p.m.;

- Site activities generating more than 65dB measured immediately outside the site shall cease between 2pm and 4pm.
- No construction work shall be carried out on Sundays and Public Holidays.

107. Site Constraints

- i. The Contractor shall take all necessary steps to ensure that the external areas and access roads are left clean and tidy during all stages of work.
- ii. Heavy construction vehicles shall be confined to specific routes, to avoid unnecessary damage.
- iii. A covered way shall be provided which shall:
 - have a clear height of not less than 2.2 metres;
 - have a clear width of not less than 1.2 metres or the width of the public way whichever is the lesser, but sufficient to ensure accessibility for pushchairs and the disabled.
 - include appropriate signage acceptable to the Authority or its designated authority and lighting in a manner that provides an adequate illumination
 - have non-slip floors and an even surface in line with national standards;
 - be designed and constructed to support safely all loads that may reasonably be expected to be applied to it, but in no case less than 2.4 kN per metre squared on its roof;
 - have a weather-tight roof sloped towards the site, or if flat, be equipped with a splash board not less than 200 millimetres high on the road side;
 - be totally enclosed on the site side with an enclosure having a smooth surface facing the public way;
 - be left free from any material or any other objects which will obstacle or hinder the free movement of pedestrians at all times.
- iv. Where deemed necessary, timber or metal barricades shall be erected to block the way and prevent access to unauthorised persons to the site.
- v. The Contractor shall ensure a safe passage past the site.

A30 Workmanship

108. General

- i. The workmanship for all elements shall be in accordance with BS 8000 Workmanship on Building Sites, where applicable, Malta Standards Authority Standards, (MSA-EN Standards), European Standards, (Harmonised EN- Standards, or European Technical Approvals), or International Standards (ISO- Standards), in this order of priority, shall be used to determine satisfactory performance, unless otherwise indicated in the Specification.

- ii. All standards referred to in this document shall be superseded by the latest standards published.
- iii. Tolerances in Building shall conform to the relevant section of BS 6954.
- iv. At all times during these works, care shall be taken to limit vibrations so as to avoid disturbing fabric and adjoining properties.
- v. Horizontal surfaces, shall be protected against adulteration with subsoil, rubbish, stone or hardcore, and protected against contamination by petrol, oil, lime, cement or other injurious substances.
- vi. The Contractor is to be responsible for the protection of all historic surfaces. All equipment and machinery used shall be equipped with the necessary fittings to ensure such. All equipment and machinery shall be fitted with rubber-tyres so as to minimise damage to the original historic surfaces.
- vii. The Contractor shall ensure that all chemical agents to be used shall not leave behind harmful by-products such as soluble salts, not leave behind a more uneven surface and be applied according to the guidelines recommended by the manufacturer.
- viii. Where a hazard to vehicular traffic on a public way is created by work on, or associated with, the site building works, the Contractor is to make the necessary arrangements and seek the necessary approvals from the relevant authorities, including the respective Local Council and the Malta Transport Authority, to provide:
 - one or more law enforcement officers;
 - warning signs;
 - barriers;
 - lane control devices; and/or
 - flashing lights or flares located at a suitable distance from the hazard

109. Operatives

- i. Operatives shall be skilled and experienced with the materials and procedures required for the types of works specified.
- ii. The Operatives must hold or be trained to obtain relevant Certificates of Competence.
- iii. Site staff responsible for supervision and control of the work is to be experienced in the assessment of the risks involved and in the methods and works to be carried out.
- iv. The Contractor shall provide evidence of training and previous experience of operatives to the Engineer on request.

110. Materials and Components

- i. All components and materials taken from the Site are to remain the property of the Employer unless specifically instructed in writing; they shall be carefully removed and stored on site as directed, and protected until removed by the Employer, re-used in the Work, or the end of the Contract.
- ii. No building material, waste, machinery or plant shall be allowed to obstruct the pavement, or the smooth flow of traffic, in the vicinity of the site on which works are in progress or complete, including the depositing of

building materials for loading or unloading purposes and placing of equipment in the street along the frontage of the site, unless authorised by the Local Council, or the relevant authorities, at the time responsible for such authorisation.

- iii. All materials resulting from the gutting out and demolition works shall be carted away in rubber-tyred barrows, transported out of the Site, and dumped in an approved dumping site. All dumping fees, and other expenses, shall be included in the rates for gutting out, or demolition, as the case may be.

111. Storage of materials on site

- i. Screed sand and other loose building materials shall be transported, deposited and stored on site in rigid containers with suitable covers or flexible sturdy containers that can be appropriately sealed, which material can support the weight being contained, to permit the total enclosure of such materials at all times and which shall be kept sealed when not in use.

112. Cleanliness

- i. Cleanliness is essential for all work.
- ii. The Contractor shall comply with the following general procedures:
 - a) The Contractor shall not permit contact between different types of adhesives, plasters and other materials which are not compatible.
 - b) The Contractor shall keep tools and mixing/handling equipment clean.
 - c) The Contractor shall remove all traces of each batch of mixed materials from containers, before adding a fresh mix.
 - d) The Contractor shall not permit wet materials to splash, or otherwise, adhere to, or contaminate other surfaces, but shall mask surfaces where and as necessary. The Contractor shall take special precautions to avoid contact with glass.
 - e) The Contractor shall ensure completed work is kept clean.
- iii. The Contractor shall take adequate facilities and measures to ensure that the site and its immediate vicinity are kept clean
 - the construction activity shall not create any discharge of cleaning agents, paints, oil, other pollutants or hazardous waste to public areas or into the sewerage system, or into the sea;
 - the immediate mopping up of spills;
 - street sweeping or washing or vacuuming;
- iv. Prior to any vehicular movement from within the site to any public area, all wheeled plant shall be obliged to have their tyres washed of any material, dirt, grime or any other material that may be carried out into the public area and deposited thereon.

113. Construction Waste

- i. All trash or debris shall be contained on site and disposed of in closed waste receptacles to avoid wind, rain or any other movement related to the construction process from carrying it off site into any public area;

- i. To further reduce the potential for accidental damage to the historic fabric, construction waste shall be collected in covered skips in specific areas, easily accessible to the waste disposal vehicles. Skips shall be removed on a regular basis, and not permitted to stay on site for periods of longer than one week, except that materials that may have potential for re-use or re-cycling shall be maintained on site, albeit in an orderly fashion.
- ii. The disposal of hazardous waste shall be carried out in accordance with procedures approved by the EPD (Environment Protection Department) and MEPA (Malta Environment and Planning Authority). Any hazardous material shall be notified to the Environment Protection Department, and shall be transported in accordance with the relevant Regulations. Hazardous wastes shall be as defined in the EU Council Directive 2000/532/EC. Relevant hazardous wastes include petroleum tank bottom sludges, waste acidic or alkaline solutions, wastes containing metals, waste hydraulic, engine, or bilge oils, degreasing agents or solvents, discarded equipment containing PCBs (Printed Circuit Boards) or asbestos, waste explosives, batteries and accumulators, soil, stone or construction and demolition waste containing dangerous substances, and insulation material containing asbestos.
- iii. Sanitary waste during the works shall be disposed of chemically. However, as soon as the utility service is connected to the site, sanitary waste shall be disposed of via a connection to the mains sewage system.
- iv. Burning of waste plastics and wood on site shall not be allowed.
- v. Waste oils shall be collected in accordance with national regulations, and other construction waste disposed of in accordance with the indications of the EPD.
- vi. All activities producing dust shall be controlled, and measures such as spraying with water shall be used to ensure that the emitted dust is minimised. Dust-laden materials shall be removed from the site, and transported through public thoroughfares, only after thorough watering before leaving the site. Dust covers, of appropriate material, properly secured along all sides, shall be used on all open-topped vehicles used for the transportation of rubbish or debris from the site.
- vii. Oil drip trays shall be used under small static plant, such as pumps and compressors. These trays shall be open to inspection and spent oil shall be disposed of in accordance with the arrangements made with the EPD.
- viii. The contractor shall also fix a chute to transfer water materials. This shoot shall be:
 - closed if it is inclined more than 45 degrees with the horizontal; and
 - be kept closed or covered at its entrance when not in use.

114. Storage of Chemical Drums

- i. Any chemical drums that may need to be on site shall be stored on impervious surfaces in designated bunded areas. Oil tanks shall be similarly stored.
- ii. The bunds shall have a capacity equal to 110% of the volume of the largest drum. In view of the fact that the bunds are meant to cater for operational leakages and spills, this is considered as sufficient.

- iii. The bunds shall have no drains, and provision shall be made for pumping out rainwater. Filling and vent pipe-work shall be located inside the bund. The bunds shall be available for inspection.
- iv. Empty drums shall be stored in a similar fashion, in separate areas, and shall be safely disposed of in accordance with the arrangements made with the EPD.

115. Noise levels

- i. All plant shall be operated with any relevant doors closed, and shall be fitted with silencers and noise suppressors.
- ii. All plant and site operations will be required to conform to BS5228. The Contractor shall select and utilise methods of working, and items of plant, so that the maximum measured ground vibrations do not exceed a peak particle velocity of 3mm per second at any occupied property, and 5mm per second at other properties, or any values indicated by the relevant Authorities.
- iii. Noise levels at the perimeter of the site shall not exceed 70dB, or the value indicated by relevant Authorities. In exceptional circumstances, the Contractor may apply for consent to carry out works that could exceed these specific limits of ground vibration or noise, but always subject to prior approval by PA.
- iv. The use of any, compressor or other noisy plant shall be limited between 08:00 and 19:00, on Mondays to Fridays, and between 09:00 and 17:00 on Saturdays. No such operations shall take place on Sundays and public holidays.

116. Completion

- i. Upon the issue of any Taking-Over certificate, the Contractor shall clear away and remove from that part of the site to which such Taking-Over certificate relates, all Contractors' Equipment, surplus material, rubbish and Temporary Works of every kind, and leave such part of the Site and Works clean and in a workmanlike condition to the satisfaction of the Engineer.
- ii. Provided that the Contractor, shall be entitled to retain on Site, until the Defects' Liability Period, such materials, Contractor's Equipment and Temporary Works as required by him for the purpose of fulfilling his obligations during the Defect's Liability Period.

B. General Health and Safety Conditions

To be read with Preliminaries/ General Conditions.

B10 General

117. Project Supervisor

- i. Appoint a 'Project Supervisor', in accordance with Occupational Health and Safety Authority Act (CAP. 424) - Work Place (Minimum Health and Safety Requirements for Work at Construction Sites) Regulations, 2004, competent to undertake the duties involved, who shall be responsible for the co-ordination of the construction process and specifically, for the preparation and administration of the Health & Safety Plan.
- ii. The Project Supervisor shall prepare a Health & Safety Plan with the following objectives:
 - a) to identify the hazards associated with the construction process,
 - b) to identify procedures to reduce the hazards to a minimum, and
 - c) to establish procedures to be adopted in the case of accidents.
- iii. The Project Supervisor shall be responsible for continuously updating the Health & Safety Plan, for ensuring that all sub-Contractors and employees know, and comply with safety rules, for excluding unauthorized persons from the work area, for displaying notices of work, keeping and updating the Building File, and ensuring the necessary health and safety training of the employees.
- iv. He shall also be responsible for notifying all relevant authorities of any accidents, and for reporting to the employer on all such incidents.
- v. The project supervisor shall, during the project execution stage:
 - a) co-ordinate implementation of the general principles of prevention and safety;
 - b) co-ordinate implementation of the relevant provisions in order to ensure that employers, and if necessary for the protection of workers, self-employed persons, follow the health and safety plan;
 - c) make, or cause to be made, any adjustments required to the health and safety plan;
 - d) co-ordinate arrangements to check that the working procedures are being implemented correctly;
 - e) take the steps necessary to check that only authorized persons are allowed onto the construction site.

118. Health and Safety Plan

- i. The Health and Safety Plan shall be submitted for approval to the Health and Safety Authority.
- ii. The National Code of Practice for Health and Safety shall be adopted throughout the construction phase of the Project.

119. First Aid Facilities

- i. The Contractor shall provide manned first aid facilities on the site, and shall be required to respect designated emergency access routes defined in the Health and Safety plan.

120. Building File

- i. The Building File shall contain information on the structure and relative risks of construction.
- ii. The Building File shall contain all design information, all information related to the materials and elements supplied to the Site, as well as that information added during the construction phase, such as “as-built” information, details of proposed programmes, certificates for plant and equipment in use, and details of significant hazards or work sequences.
- iii. The Building File shall be submitted to the Employer at the end of the Works.

B10.01 Workmanship

121. General Hazards

- i. The following hazards have been identified during the construction process:
 - a) Workers hit by, or trapped by, plant adjacent to demolition areas;
 - b) Electrocution from buried/overhead electricity services;
 - c) Workers falling from unstable platforms, or from heights on existing buildings;
 - d) Noise and dust production as a result of demolition, scabbling and cutting;
 - e) Workers crushed by collapse of demolished material, particularly during overhead transport.

122. Risk Mitigation Measures

- ii. The following measures shall be adopted to minimise risks on site:
 - a) Clear delineation of plant movement areas;
 - b) Double checks on possible existence of buried services - clear delineation of known services;
 - c) Provision of sturdy work platforms, and guide rails at unprotected edges of existing buildings;
 - d) Use of plant with limited noise emission;
 - e) Periodic wetting of demolition area to reduce dust emission;
 - f) Establishing clear procedural rules during overhead material handling - enforcement of hard hats.

B20 Safety provisions

123. General

- i. The following provisions shall be made, without limiting, in any way, other provisions that the Contractor may deem necessary in order to render the Site and the Work safe:
 - a) Where there is an imminent danger to the safety of workers, the Contractor shall take immediate steps to stop the operation and evacuate workers as appropriate;
 - b) Secure fencing, to prevent unauthorised access to the active work areas;
 - c) A Notice, giving information on the specific hazards, and on the availability of emergency assistance, shall be clearly displayed in a position such that those working on site can read it as well as those affected by the Site;
 - d) Routes for the movement of vehicular traffic and plant, within the Work Site, and its immediate surroundings shall be clearly delineated. These routes shall be separated from the areas subject to overhead movements;
 - e) Escape routes and means of escape shall be kept clear at all times. They shall be frequently inspected, especially where access is restricted, as in tunnel workings;
 - f) Existing services, both overhead and underground, within the work site, and immediately surrounding the work site, shall be identified, the respective utility companies contacted for information, and disconnected/made safe;
 - g) Special attention shall be given to lifting, slewing and overhead handling operations to avoid public access areas.
 - h) The Contractor shall take appropriate measures, or shall use the appropriate means, in particular mechanical equipment, in order to avoid the need for the manual handling of loads by workers;
 - i) All openings through which workers are liable to fall shall be kept effectively covered or fenced and marked in the most appropriate manner;
 - j) Where natural lighting is not adequate to ensure safe working conditions, the Contractor shall provide adequate and suitable lighting, including portable lighting when appropriate, at the Site of work;
 - k) Guard-rails and toe-boards shall be provided to protect workers from falling from elevated workplaces; alternatively, adequate safety nets or safety sheets shall be erected, made fast and maintained, or adequate safety harnesses shall be provided and used;
 - l) Hoist shafts shall be enclosed with rigid panels or adequate fencing at ground level on all sides;
 - m) The Contractor shall be responsible for ensuring that all persons on the Site, whether the Contractor's employees or otherwise, wear the necessary personal protective clothing at all stages;
 - n) The Engineer shall have the right to send away any of the Contractor's employees, or of his Sub-Contractors, or otherwise

doing work on the site, if they do not comply with this requirements.

124. Fire Outbreak

- i. The Contractor shall take all appropriate measures to:
 - a) avoid the risk of fire;
 - b) control quickly and efficiently any outbreak of fire;
 - c) bring about a quick and safe evacuation of persons.

B20.01 Workmanship

125. Protective Clothing and Equipment

- i. Workers shall be provided with, and shall wear the following personal protective clothing and equipment:
 - a) safety helmets or hard hats to protect the head from injury resulting from falling or flying objects, or from striking against objects or structures;
 - b) goggles, a screen, a face shield or other suitable device when likely to be exposed to eye or face injury from airborne dusts or flying particles, dangerous substances, harmful heat, light or other radiation, and in particular during welding, flame cutting, rock drilling, concrete mixing or other hazardous work;
 - c) protective gloves and suitable protective clothing to protect hands or the whole body when exposed to heat radiation or while handling hot, hazardous or other substances which might cause injury to the skin;
 - d) footwear of an appropriate type when employed at places where there is the likelihood of exposure to adverse conditions, or of injury from falling or crushing objects, hot or hazardous substances, sharp-edged tools or nails;
 - e) respiratory protective equipment, suitable for the particular environment, when workers cannot be protected against airborne dust, vapours or gases by ventilation or other means;
 - f) waterproof clothing and head coverings when working in adverse weather conditions;
 - g) safety harnesses with independently secured lifelines where protection against falls cannot be provided by other appropriate means.

126. Storage of materials

- i. The Contractor shall provide safe, sufficient and suitable storage for flammable liquids, solids and gases such as liquefied petroleum, gas cylinders and paints.
- ii. Storage areas for flammable liquids, solids and gases shall be rendered secure against trespassers.

- iii. Smoking shall be prohibited and “No smoking” notices of appropriate design and shape shall be prominently displayed in all spaces containing readily combustible or flammable materials.
- iv. Combustible material such as scrap wood or plastics, oily/greasy waste, sawdust or packing material shall not be allowed to accumulate in places of work, but should be kept in closed metal containers in a safe place.

127. Scaffolding / support systems

- i. All work shall be carried out in accordance with the Health and Safety Executive Guidance Note GS51, with BS8004, section 9.7 and generally in accordance with BS5975.
- ii. Adequate precautions shall be taken to protect persons from injury by the fall of materials, tools or equipment being raised or lowered. Such precautions will include fencing, barriers and the like. Safety nets or sheets should be tied at every intersection of the scaffolding tubing and able to withstand rupture from the above mentioned loads; otherwise barriers (in the form of inclined overhangs) will be introduced at a distance of 4 to 6m above ground level followed by ones at 12m intervals. Fencing, barriers, or the appropriate utilization of lookout men.
- iii. The Contractor shall provide competent supervision to ensure that all scaffolds are used appropriately, and only for the purpose for which they are designed or erected.
- iv. Where work at the face of a building or other structure is done from a working platform, the space between such face and the working platform shall be as small as practicable, provided that, where workmen sit at the edge of the platform to work, such space may be up to a maximum of 30cms.
- v. In transferring heavy loads on to a scaffold, a sudden shock shall not be transmitted to the scaffold. When hoisting loads on to scaffolds, the loads shall be controlled by a hand rope (tag line), so that they cannot strike against the scaffold. The load on the scaffold shall be evenly distributed, as far as practicable, and in any case shall be so distributed as to avoid disturbance of the stability of the scaffold. Scaffolds shall not be used for the storage of material except that required for immediate use.
- vi. Workers shall not be employed on external scaffolds in weather conditions that threaten their safety.
- vii. Guys, stays or supports shall be used where required to prevent danger; alternatively other effective precautions shall be taken to prevent the collapse of structures or parts of structures that are being erected, maintained, repaired, dismantled or demolished.
- viii. No scaffold shall be partly dismantled and left so that it is capable of being used, unless it continues to be safe for use.
- ix. Gangways and stairways of the scaffolds shall be provided with overhead screens of adequate strength and dimensions to prevent danger from falling objects, working platforms, gangways and stairways of scaffolds shall be provided with overhead screens of adequate strength and dimensions.. Materials shall not be thrown from scaffolds; exceptions shall be made only where the landing area has been designated, protected,

appropriate notices displayed and is under supervision of a person at landing level.

- x. Scaffolding materials shall not be thrown from scaffolds or from heights. Other materials shall only be thrown from scaffolds or heights where the landing area has been designated, protected, appropriate notices displayed and is under the supervision of a person on a landing level.
- xi. Openings between the scaffolding and the structure, which exceed 20cm, should be adequately protected by the installation of handrails. Wherever the above hinders operations to be carried out, workers shall be provided with safety harnesses with independently secured lifelines.
- xii. Ant timber used in the construction of scaffolds shall be straight-grained, sound and free from large knots, dry rot, worm holes and other defects likely to affect its strength. Where necessary, boards and planks used for scaffolds shall be protected against splitting. Ladders, boards and planks used in scaffolds shall not be painted, so that any defects remain visible. All tubes, couplers and fittings used in metal scaffolding shall be free from damage and distortion, and shall be maintained in a lubricated condition. Couplers shall not cause deformation in tubes. Couplers shall be made of drop forged steel or equivalent material. Tubes shall be free from cracks, splits, and excessive corrosion, and shall be straight to the eye. Tube ends shall be cut cleanly square with the tube axis. Alloy and steel tubing shall not be intermixed on the same scaffold.
- xiii. Tower scaffolds shall be designed and built in such a manner that the ratio of height to the base width is not more than 3.5: 1, in the case of static towers used outdoors, and in a ratio of 4: 1, in the case of static towers used indoors; in any case, the height of free-standing static towers should not exceed 12m. Mobile towers shall not be moved while persons or materials are on the top platform. The ratio of height to base width in the case of mobile towers used outdoors shall be of 3:1, but should not in any case exceed 9.6m in the case of free-standing mobile towers.
- xiv. In the case of prefabricated scaffold systems, the manufacturers' instructions shall be strictly adhered to. Prefabricated scaffolds shall have adequate arrangements for fixing bracing. Frames of different types shall not be intermingled in a single scaffold.
- xv. In addition to the requirements for scaffolds in general as regards soundness, stability and protection against the risk of falls, suspended scaffolds shall have:
 - a) a safe cabin, with full protection from weather and adverse climatic conditions, and designed and constructed in accordance with ergonomic principles;
 - b) a clear and unrestricted view of the area of operation;
 - c) safe access to, and egress, from the cabin, including for situations where the operator is taken ill.

128. Lifting Gear

- i. A lifting appliance or item of lifting gear shall not be loaded beyond its safe working load or loads.

- ii. No person shall be raised, lowered or carried by a lifting appliance unless it is constructed, installed and used for that purpose, except in an emergency situation.
- iii. Every platform or receptacle used for hoisting any loose material shall be so enclosed as to prevent the fall of any of the material.
- iv. Wheelbarrows, whether loaded or not, placed directly on a platform for raising or lowering, shall be so secured so that they cannot move, and the platform shall be enclosed as necessary to prevent the fall of the contents.

129. 'Housekeeping' Program

- i. A suitable "housekeeping" programme shall be established, and be continuously implemented on the Site.
- ii. Areas within the Site, which are liable to become slippery, because of oil or other causes, shall be regularly cleaned up, or strewn with sand or sawdust.
- iii. It shall include provisions for the proper storage of materials and equipment, and for the removal of scrap, waste and debris at appropriate intervals.
- iv. Loose materials that are not required for use shall not be placed or allowed to accumulate on the site, so as to obstruct means of access to, and egress from, places of work and passageways.

B30 Machinery/ equipment

130. General

- i. All manual tools, pneumatic tools, electrical tools, concrete mixing equipment, compressors, etc. shall be suitable for the work to be carried out, shall conform to approved standards and regulations, shall be safe and such that they can be operated without risk to health.
- ii. They shall be provided with protective guards, shields or other devices as appropriate, which shall be maintained regularly, which shall be equipped, where applicable, with an extraction system which shall be as close as possible to any source of the dust, and which sucks away from the breathing zone, not through it, shall be fitted with shock absorbing materials, and be fitted with noise control protection devices at source to reduce as much as possible noise exposure.
- iii. Only insulated or non-conducting tools shall be used on or near live electrical installations if there is any risk of electrical shock. Only non-sparking tools shall be used near or in the presence of flammable or explosive dust or vapour.
- iv. Operating triggers on portable pneumatic tools shall be so placed as to minimize the risk of accidental starting of the machine, and so arranged as to close the air inlet valve automatically when the pressure of the operator's hand is removed. Hose and hose connections for compressed-air supply to portable pneumatic tools shall be designed for the pressure and service for which they are intended, fastened securely to the pipe outlet,

and equipped with a safety chain, as appropriate. Pneumatic shock tools shall be equipped with safety clips or retainers to prevent dies and tools from being accidentally expelled from the barrel. Pneumatic tools shall be disconnected from power and the pressure in hose lines released before any adjustments or repairs are made.

- v. Portable electric tools shall generally be used on reduced voltage to avoid as far as possible the risk of lethal shock. All electrical tools shall be earthed, unless they are “all insulated” or “double insulated” tools which do not require an earth. Earthing shall be incorporated in metallic cases, and as a safeguard against damaged cables, where wires enter the tool. Electric tools shall be fitted with protection guards that are regularly maintained for their effectiveness. Power cables to electrical tools shall be armoured and/or covered in thick flexible rubber, and socket outlets shall be of special design for outdoor use, and protected by a residual current circuit breaker.
- vi. All electrical tools shall receive inspection and maintenance on a regular basis by a competent electrician, and complete records kept.
- vii. The cables of portable electrical lighting equipment shall be of adequate size and characteristics for the power requirements and of adequate mechanical strength to withstand severe conditions in construction operations.
- viii. All vehicles and earth-moving or materials-handling equipment shall be of good design and construction, taking into account established ergonomic principles, particularly with reference to the seat; they shall be maintained in good working order, shall be used with due regard to health and safety, by workers who have received appropriate training.
- ix. Where appropriate, earth-moving or materials-handling equipment shall be fitted with structures designed to protect the operator from being crushed should the machine overturn, and from falling material.
- x. All vehicles and earth-moving or materials-handling equipment shall be fitted with a plate indicating the gross laden weight; the maximum axle weight or, in the case of caterpillar equipment, ground pressure.
- xi. Plant, machinery and equipment shall be switched off when not in use and isolated before any major adjustment, cleaning or maintenance is performed. Where trailing cables or hose pipes are used they shall be kept as short as practicable, be mechanically protected and not be allowed to create a safety hazard.
- xii. Mobile high pressure compressor plants and equipment shall be examined, tested and certified annually by a mechanical Engineer having a warrant to practice his profession.
- xiii. Portable compressors shall be fitted with a double adjustable towbar and jockey wheel. When the plant/equipment is in operation, wheel chocks shall be installed. The wheels must be fitted with brakes that are operated automatically via a handbrake for parking purposes.
- xiv. Only competent persons shall operate and maintain such plant and equipment.

131. Operators

- i. The Contractor shall assign workers only to employment for which they are suited by level of training, age, state of health and skill, and having ensured that the workers are fully aware of any risks to health or hazards connected with the work, and that they are trained in the precautions necessary to avoid accidents or injury to health. Such training shall be given in a language that is understandable to the workers. The training shall be sustained periodically and shall take into account any new or changed risks to the health and safety of the employees concerned.
- ii. When the use of equipment is likely to involve a specific risk to the health or safety of workers, the Contractor shall take the measures necessary to ensure that:
 - a) the use of equipment is restricted to those persons given the task of using it, and who have been adequately trained for the specific task;
 - b) in the case of repairs, modifications, maintenance or servicing, only competent workers are specifically designated to carry out such work.
- iii. All operators of construction equipment shall receive basic training as per Code of Practice provisions.
- iv. Drivers of heavy machinery shall be over 21 years of age, and shall have followed an approved course in relation to the equipment to be used or driven and be in possession of a valid licence.

132. Maintenance

- i. All vehicles and handling plant shall be certified to be in a proper working order, and shall be operated by trained personnel.
- ii. All vehicles and plant shall be properly maintained, and any faults rectified or repaired promptly.
- iii. All vehicles and handling equipment shall be equipped with acoustic signalling devices, with power and hand brakes, with reversing alarms in addition to the normal lights, and with silencers.

133. Noise Emissions

- i. Noise emission levels from the plant/equipment must conform to approved standards, for example as stipulated in E.U. Directive 84/553/EEC.
- ii. The exhaust system from the engine must be fitted with a residual silencer.

B40 Cranes

134. Certification

- i. All cranes and tower cranes used on site shall be certified by a warranted mechanical Engineer, in accordance with the regulations issued

by the Health and Safety Section of the Department of Labour, every 6 months.

- ii. Copies of the certificates shall be sent to the Project Manager.
- iii. Failure to comply or to update these certificates will lead to an automatic penalty.

135. Adverse Weather

- i. Further measures shall be taken to protect cranes against the effects of bad weather and lightning.

B50 Temporary electrical installation

B50.01 Generally/preparation

136. Regulations

- i. Any temporary electrical installation on the Site shall meet the requirements of the IEE Regulations for Electrical Installations, and of the Enemalta Regulations.
- ii. In particular, IEE Regulations paragraph 604, and specifically:
 - a) 604-03 Protection for Safety;
 - b) 604-04 TN System (an IT System of supply shall not be used);
 - c) 604-08 Provision of RCD;
 - d) 604-09 All switchgear must be P55;
 - e) 604-10 No wiring system shall have strain placed on the termination of conductors; No cable shall be run across access roads where cranes and other earth- moving equipment shall be passing;
 - f) 604-11 Isolation and switching; shall be applied. The above shall not apply to any site offices, meeting rooms, changing rooms etc., where the general provisions of the Regulations shall apply

B50.02 Certification

137. Certification

- i. Any temporary electrical installation shall be certified by an independent warranted electrical Engineer, every 3 months, and the certificate shall be affixed in a prominent position next to the Main Temporary Switchboard.
- ii. Failure to comply, or to update this certificate, will lead to an automatic penalty of 100euro per day.

C. Existing site, buildings and services

To be read with Preliminaries/ General Conditions

C20 Scaffolds and related support systems

C20.01 Workmanship

138. General

- i. Support systems shall be designed in accordance with BS5975.
- ii. All operations are to be carried out with full respect for all parts of the Church. This applies to how materials are handled, how they are stored, how materials are attached to or are in contact with the walls and how the tools are used on the historic fabric.
- iii. Scaffolding shall be erected by qualified personnel and inspected regularly.
- iv. Scaffolding shall be properly designed, constructed, erected and maintained so as to prevent collapse or accidental displacement when properly used.
- v. Scaffolds shall be designed for their maximum load and with a safety factor of at least 4 times their maximum load.
- vi. The maximum loading capacity of the scaffolding, as specified by the supplier or erector, shall be indicated on the scaffolding, and shall not be exceeded at any stage.
- vii. All work platforms and scaffolding are to be of sturdy construction, certified, and securely attached (without damaging the building material in which they are anchored) to solid parts of the structure, or of the ground, complete with guard rails, toe rails, secure ladders, etc.
- viii. All base plates of the scaffolding assembly should be secured over wooden blocks on firm ground to prevent slipping or sinking. Loose bricks, drainpipes or other unsuitable material shall not be used for the construction or support of any part of a scaffold.
- ix. Scaffolds shall be provided with safe means of access, such as stairs, ladders or ramps. Ladders shall be secured against inadvertent movement. Scaffolds shall be adequately braced or strutted to prevent collapse.
- x. All work platforms are to be continuous and securely attached to the scaffolding; any access openings for ladders or staircases should be protected by handrails up to 110cm above platform level, the vertical spacing of which being 47.5cm each when the toe-boards are 15cm deep.
- xi. Any work on the facades producing dust, shall be strictly controlled, by covering the scaffolding with the adequate safety nets or sheets.
- xii. The Contractor shall regularly inspect and monitor supported structure to ensure stability, and shall report any significant movement or damage to the fabric of supported structure to the Engineer.

139. Fixing to historic fabric

- i. Wherever possible, the structure must be tied to the building at suitable vertical and horizontal distances without perforating the building material. This shall be done by utilising anchor screws for securing the tubes by contrast in openings or in the projecting parts of the front of the building. If not possible, a predetermined minimum number of perforations for tying the scaffolding to the historic structures will be allowed. The latter will make use of a bolting system inserted in the joints between the blocks for minimum damage possible to the masonry.
- ii. Wherever this does not result in a solid tie due to air gaps between the irregular sides of the masonry blocks, such a system should be supplemented by the preparation of the base with a resin to provide a solid anchor point to the structure.
- iii. Putlog scaffolding will not be permitted.

140. Lifting mechanisms/ gear

- i. Lifting appliances shall be securely attached to mountings.
- ii. The Contractor shall be responsible to ensure that all lifting appliances are certified to be in a proper working condition.
- iii. Fixed lifting gear shall be installed by competent personnel, and certified to be in a proper working condition.
- iv. Fixed lifting gear shall be located in such a way that the operator can either see over the zone of operations or be capable of communicating with all loading and unloading points.

141. Mobile towers

- i. Mobile towers shall be equipped with wheels fixed to the scaffold, turned outwards to provide maximum base dimensions and with wheel brakes which are to be kept locked when the tower is in use.
- ii. Mobile towers shall not be moved while persons or materials are on the top platform. The ratio of height to base width in the case of mobile towers used outdoors shall be of 3:1, but, in the case of free-standing mobile towers, the height shall not exceed 9.6m.

142. Dismantling of support structures

- i. The Contractor shall inform the Engineer and obtain any required permission to disconnect and dismantle support systems.
- ii. The Contractor has to ensure that all holes for the connections made in the historic structures shall be made good.

143. Completion

- i. On completion, the Contractor shall clear away from the site all support systems and, any working areas beyond the site boundary, left in a tidy condition.

D. Mortars

To be read in conjunction with Preliminaries/General Conditions.

D10 General Requirements

144. Scope of work

- i. The identification of the adequate composition and colour of various mortar mixes to point the Church structure, as approved by the Engineer.
- ii. The choice of mortar shall relate firstly to the type and condition of the masonry, secondly to the degree of exposure and thirdly to the required appearance, or as instructed by the Engineer.
- iii. All mortars used in the Church shall be strictly lime based, unless otherwise instructed by the engineer.

D10.01 Mortar sampling

145. General Sampling

- i. It may be necessary to take various mortar samples from areas indicated by the Engineer, including testing composition of the original mortar. The method of analysis shall depend on the required information and instructed by the Engineer.
- ii. The samples shall be in the form of lumps, not crumbled or powdered.
- iii. The quantity required shall normally be approximately 40-50g, or as per Engineer's approval.
- iv. The Contractor shall accurately record the exact position from which the samples are taken.
- v. A minimum of three samples from the same wall shall be taken to ensure consistency of mortars.
- vi. All samples shall be clearly and thoroughly labelled.

D20 Lime: sand mortars

D20.01 Workmanship

146. Sand for lime: sand mortars

- i. Sharp, well graded and conforming to the methods of sampling and testing and quality requirements of BS882 or BS1200, unless specified otherwise.

147. On-site slaking of lime

- i. The quicklime shall be delivered as fresh as possible on site and kept in dry conditions.

- ii. Slaking on site for repair works shall be carried out in a galvanised steel cold-water storage cistern.
- iii. The tank shall be filled with clean, potable water to a depth of approximately 300mm; the quicklime shall then be added.
- iv. The operation shall be carried out slowly and carefully; particular attention shall be given due to the reaction between water and quicklime which raises the water temperature to boiling point.
- v. The rather greasy mass of lime putty formation thereafter shall be sieved through a 5mm screen; this operation will remove unburnt lumps and the larger coagulations.
- vi. The Contractor shall leave the putty screened under a few centimetres of slaking water (lime water). The lime water shall be siphoned off when required for use.
- vii. The thin skin forming on the surface shall be left *unbroken* until the insertion of a small siphon tube to remove the water.
- viii. The slaking of the lime putty with a shallow covering of water shall be kept for a minimum of 2 weeks.
- ix. The slaked putty shall then be mixed with the chosen aggregates in the desired ratio (1:3 or similar), mechanically or by hand, turning, beating and chopping the coarse stuff.
- x. The wet *coarse stuff* shall be stored under wet underlay felt, or wet sacks, preferably in bins with air-tight lids.

148. Ready prepared lime putty

- i. The ready prepared lime putty shall be slaked directly from CL90 (high calcium) quicklime to BS890, using an excess of water and matured in pits/containers that allow excess water to drain.
- ii. The density of matured lime putty shall be 1.3 to 1.4kg/litre.

149. Pozzolanic admixtures for non-hydraulic lime: sand mortars

- i. Pozzolanic additives will be added to a lime;sand mortar to react with lime and enable the lime mortar to set hydraulically.
- ii. The additives shall be mixed thoroughly into lime: sand mortar during knocking up stage.

150. Site storage of lime: sand mortar materials

- i. The different sands shall be stored in different stockpiles on hard clean bases that allow free drainage.
- ii. Bags of hydrated hydraulic lime powder shall be stored in dry conditions, raised off the ground and not in contact with damp surfaces. Hydraulic lime affected by damp shall not be used.
- iii. Ready prepared non-hydraulic lime putty shall be stored in conditions that prevent drying out.
- iv. Non-hydraulic lime: sand mortar shall be stored either on clean bases or in clean containers that allow free drainage. The containers shall be kept covered to prevent drying out or wetting.
- v. Stored materials and other building materials shall not be intermixed or contaminated with set material or debris or other deleterious matter.

151. Making lime: sand mortars generally

- i. All plant and banker boards shall be kept clean at all times.
- ii. Materials shall be accurately measured by volume using clean gauge boxes or clean undamaged buckets.

152. Site preparation of non-hydraulic lime: sand mortar

- i. The lime putty shall be thoroughly mixed with the sand together by compressing, beating and chopping using a roller pan mixer, or approved mixing method; no water shall be added unless approved by the Engineer.
- ii. Hydrated non-hydraulic lime powder shall be discarded.
- iii. Ready-prepared non-hydraulic mixes shall not be allowed unless approved by the Engineer.

153. Knocking up non-hydraulic lime: sand mortar

- i. When required for use, mortar shall be thoroughly knocked up to a workable consistency by compressing, beating and chopping using a roller pan mixer, or other approved mixing method. No water shall be added.
- ii. During use, drying out or wetting shall be prevented, and workability shall be retained by chopping and beating.

154. Site preparation of hydraulic lime: sand mortar

- i. Hydrated lime powder shall be thoroughly mixed with sand, first in the dry state and then with water.
- ii. Ready-prepared non-hydraulic mixes shall not be allowed unless approved by the Engineer.
- iii. The lime manufacturer's recommendations shall be followed for each stage of the mix. Only sufficient water shall be added to produce a workable mix.
- iv. Mortar shall only be used within time limit recommended by the lime manufacturer. Mortar that has begun to stiffen shall not be used.

D30 Cement Gauged Mortars

D30.01 Workmanship

155. Sand for cement gauged mortars

- i. To BS1200 unless specified otherwise
- ii. Sand for facework mortar shall be from one source, different loads to be fixed if necessary to ensure consistency of colour and texture.
- iii. When a range is specified (ex: 1:1:5-6) a lower proportion of sand for Grade G sands and higher proportion for Grade S shall be used.

156. Ready-mixed lime: sand for cement gauged mortar

- i. Unless specified otherwise, ready-mixed lime: sand to BS4721 shall be used.

- ii. Coloured mortar, where required, shall be made using a proprietary coloured ready-mixed lime: sand, colour to approval where not specified.

157. Cement for mortar

- i. When not specified otherwise, cement for mortar shall be Portland cement or Portland blast furnace cement, to class 42.5 or 52.5; manufactured and supplied under the BSI Kitemark scheme for cement. All cements shall comply with the appropriate BS-EN, or, if available to the appropriate MSA-EN..

158. Retarded ready-mixed cement gauged mortars

- i. Retarded ready-mixed cement gauged mortars may be used provided that materials and proportions specified conform to BS4721.

159. Admixtures

- i. Admixtures shall not be used in mortar unless specified or approved. Calcium Chloride or any admixtures containing Calcium Chloride shall not be used.
- ii. Admixtures, if specified, shall conform to BS4887.

160. Site storage of cement gauged mortar materials

- i. Different sands and aggregates shall be stored in different stockpiles on hard clean bases that allow free drainage.
- ii. Factory produced premixed lime: sand for mortars and ready-to-use retarded mortars shall be stored in covered containers to prevent excessive drying out or wetting.
- iii. Bags of cement and hydrated lime shall be stored in dry conditions, raised off ground and not touching damp surfaces. Cement or hydrated lime affected by damp shall not be used.
- iv. Intermixing and contamination between stored materials and other building materials, debris or other deleterious matter shall be prevented.

161. Making cement gauged mortar

- i. Plant and banker boards shall be kept clean at all times.
- ii. Materials shall be measured accurately by volume using clean gauge boxes or clean, undamaged buckets. Proportions of mixes shall be for dry sand, and due allowance shall be made for bulking if sand is damp.
- iii. Ingredients shall be mixed thoroughly to a consistence suitable for the work and free from lumps. Mortars containing air-entraining admixtures shall be mixed by machine, but shall not be over mixed.
- iv. Mortar shall be used within about two hours of mixing at normal temperatures. Retarded mortar shall be used within the time and site temperatures recommended by the manufacturer. Mortar may be retempered to restore workability, but only within these time limits.

E. Reinstatement of disposal systems

To be read with Preliminaries/ General Conditions

E10 General Requirements

162. Scope of work:

- i. The work in this section includes the introduction of the repair and reinstatement of the water runoff systems of the Balcony (and the areas around the façade).

163. Related repair/remedial works specified elsewhere

- i. The Contractor shall ensure the cleaning works and reinstatement of the surface run-off system

164. Protection of existing fabric

- i. The Contractor shall ensure that all works shall be carried out with particular attention and with care to avoid any damage by machinery or tools to the original historic fabric.
- ii. Whenever mechanical equipment shall be used, on approval by the Engineer, care shall be taken to limit vibrations so as to avoid disturbing fabric and adjoining properties.
- iii. Adequate precautions shall also be taken for weather protection

E10.01 Workmanship

165. General

- i. No works shall commence without prior consent of the Engineer.

166. Existing Utility services

- ii. Existing services shall be identified as far as possible, and disconnected/ made safe.

E30 Laying water disposal system

- i. The Contractor shall ensure that during the cleaning operation, any worked stonework shall not be damaged in any way.
- ii. Any damage to the stonework shall be made good at the expense of the Contractor and the repairs carried out in a manner approved by the Engineer.
- iii. The clearing works shall be carried out manually. Mechanical means, if necessary, shall only be employed where instructed by the Engineer.

E40 Drainlaying works

167. Rainwater drainage

- i. The existing rain water pipes to be dismantled carefully and stored adequately to prevent any damages and re installed.

F. Waterproofing works

To be read with Preliminaries/ General Conditions

F10 General

168. Scope of works

- i. The scope is the reduction of the possibility of water ‘ponding’ in areas and hence infiltrate into the structure.
- ii. The works shall include the installation of a Waterproofing System, consisting of application of a liquid applied waterproofing membrane and a protective screed, on the balcony
- iii. The repair and reinstatement of a (lime based) screed, laid to falls, to direct water away from the façade, on all exposed horizontal surfaces, including cornices etc.
- iv. The laying of a lime based screed, laid to falls, to direct water away from the façade, on all exposed horizontal surfaces, including cornices, etc.

F20 Liquid Applied Membrane

169. General

- i. The Contractor shall be responsible for the quality of the proprietary waterproofing materials employed and workmanship, and shall provide a guarantee for a minimum of 10 years (for fist maintenance) from date of completion of the Contract and that he will maintain the Works in a waterproof condition.
- ii. The Contractor will be notified in case of a defect. In default, the Employer reserves the right to order any necessary repairs at any price and from any source and charge the relative amount to the Contractor without the necessity of any legal proceedings.
- iii. During the course of the Works, the Engineer shall have the power to order the Contractor to remove from Site any material that falls short in any way of the specified standard or quality. This also applies to workmanship that is not of the standard required. The Contractor shall be bound to comply with such orders at his expense.

- iv. The Contractor's rate shall be considered as inclusive and as covering the supply of materials, including waterproofing tapes, and all the works specified, as well as any other works which notwithstanding their omission are either contingent, complimentary, or indispensable for the execution of the Contract in its entirety and as intended.
- v. The Contractor shall submit to the Engineer, prior to commencement of waterproofing Works:
 - a) all specifications including water absorption of the material and the longitudinal and transversal elongation;
 - b) method of application;
 - c) all descriptive literature and supplier's specifications of materials being used;
 - d) detailed design showing the application of the material;
 - e) confirmation in writing by the materials suppliers that the waterproofing system being proposed is appropriate for the job.

170. Liquid applied membrane

- i. The application of a reinforced liquid membrane shall be for the waterproofing over the concrete and masonry surfaces, or as instructed by the Engineer.
- ii. The liquid membrane shall consist of a thixotropic polymer based high resistance liquid, resistant to UV rays, to take foot traffic and with excellent adhesion to concrete and masonry surfaces.
- iii. The Contractor shall submit technical details, samples and colours (earth colour shades - a pale rust colour to match the former 'deffun' colour) of the material proposed for use in the Works, for approval by the Engineer.
- iv. The Contractor shall be responsible for the quality of waterproofing materials and workmanship, and shall provide a guarantee for a minimum of 10 years from date of completion of the Contract and that he will maintain the Works in a waterproof condition.
- v. Application shall comply strictly with manufacturer's instructions.

171. (Protective) Concrete Screed

- i. Concrete screeds for roofs shall be of partially bonded construction and shall normally consist of a minimum thickness of 75mm thick Grade C15 concrete. The roof screed shall be finished smooth.
- ii. No admixtures containing calcium chloride shall be used. The water content of mixes shall be the minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to the surface during compaction. Materials shall be mixed thoroughly to a uniform consistence. Mixes other than no-fines shall be mixed in a suitable forced action mechanical mixer. A free fall type (drum) mixer shall not be used. Concrete screeds shall be used whilst the mix is sufficiently plastic for full compaction. Ready-mixed retarded screed mortar shall be used within the working time and site temperatures recommended by the manufacturer. Re-tempering shall not be allowed.
- iii. Screeds/toppings shall not be laid unless their surface temperature can be maintained above 5 degrees Celcius for not less than 4 days thereafter. In hot weather the time between operations shall be reduced or alternatively other measures shall be used to prevent premature setting or drying out.
- iv. Before starting work, it shall be ensured that the bases for concrete screeds are such as to permit specified levels and flatness/regularity of finished

surfaces, bearing in mind the permissible minimum and maximum thickness. All surfaces shall be sound and free from significant cracks and gaps, and bases shall be clean and free from plaster, dirt, dust and oil.

- v. Unless otherwise specified, bay sizes shall not be more than 10sq m, and the ratio of length to breadth not more than 3:2. Control joints, 10mm wide, shall be left between the screeding bays. These joints shall subsequently be filled with cement slurry. Where location of bay joints is not shown on drawings the Contractor shall obtain approval before starting work. Forms for joints shall be square edged with steel top surfaces, securely fixed. Concrete screeds shall be compacted thoroughly at edges to give level, closely abutted joints with no lipping. Alternatively, toppings may be cast continuously, bay joints being formed with approved plastics or metal dividing strips.
- vi. Permissible deviations in the level of surface of screeds (allowing for thickness of coverings) and toppings, measured from the datum shall not exceed +/-10 mm.
- vii. Sudden irregularities in the surface of screeds or toppings shall not be permitted.
- viii. Falls shall be at a minimum of 1:60, or as otherwise approved by the Engineer and sufficiently even to prevent 'ponding'.
- ix. Curing and surface finishes shall be as previously specified.

G. Structural intervention works

To be read with Preliminaries/ General Conditions

As part of the restoration envisaged on the exterior envelope of the chapel, it is being proposed that five new buttresses are introduced adjacent to the southern side of the chapel. From a visual analysis of both the interior and exterior of the chapel, the southern side wall has been subject to lateral movement which has affected also the structural stability of the roof. This is apparent from the attached photos. The five new buttresses which shall be constructed on the exterior part immediately adjacent to the internal five arches, are intended to take the lateral stresses being imposed by the arches themselves. Such intervention will prevent further movement of the southern wall which incidentally is narrower than the opposite wall and therefore by comparison can withstand less pressure than the opposing wall.

Adequate scaffolding will be erected inside the chapel to enable the dismantling and construction of roofing whilst ensuring safety to the workers. It is suggested that the existing side staircase shall be firstly removed following a detailed photographic survey of the same. In view of the existing structural damage carried out, the roof of the chapel and the central parts of the arches shall also be dismantled. It may be considered more appropriate to dismantle the roofs before constructing the buttresses if this enables the realignment of the southern wall. Any dismantling shall be carried out by first loosening the pointing from the joints, the xorok and key stones shall be taken-up/dismantled. The operation shall be carried out manually by gradually removing the individual xorok and key stones one at a time. Once removed, the reference number is marked clearly and indelibly on the concealed faces of the element. The xorok and key stones are cleaned from the old mortar, soil, etc., and then placed on pallets and stored adequately to prevent any further damage.

Once the roof and arches has been dismantled, and thus lateral pressures on the southern side wall area relieved, the excavation for the buttresses foundations shall be carried out. Works are being envisaged to be carried out using hand held tools (or if the case may be using small mechanical means). It is being suggested, however the following shall be confirmed following a thorough analysis of the existing situation, that the first and last buttresses are the first to be constructed so as to serve as a support of the whole southern side. Once all buttresses are constructed and therefore the southern side has been reinforced, the reconstruction of the arches and the roof can be carried out accordingly. Once in place, the joints shall be filled and grouted with a coloured mortar. Any excess grout or other surface blemish shall be removed as instructed.

Subsequently, the side stairs which has been dismantled can also be reconstructed. These however need to be re-oriented and fitted within the buttresses constructed.

SECTION 5 - SUPPLEMENTARY DOCUMENTATION

5.1 - Draft Contract Form

5.2 - Glossary

5.3 - Specimen Performance Guarantee

5.4 - Specimen Pre-financing Guarantee

5.5 - Specimen Retention Guarantee

5.6 - General Conditions of Contract

The full set of General Conditions for Works Contracts is included in the tender package.

It is hereby construed that the tenderers have availed themselves of these general conditions, and have read and accepted in full and without reservation the conditions outlined therein, and are therefore waiving any standard terms and conditions which they may have.

These general conditions will form an integral part of the contract that will be signed with the successful tenderer/s.