

IMPORTANT NOTICE

Submission of Quotations

Economic Operators must submit their quotation in accordance with the Instructions to Bidders and on the email address provided below.

Prospective Bidders are reminded that when submitting more than one option for a particular quotation, they should submit multiple quotations. Prospective Bidders are reminded to follow the instructions provided below. The Contracting Authority will disqualify Economic Operators who do not abide by the above instructions.

Submission of Financial Offer

Bidders must quote all components of the price inclusive of taxes/charges, customs and import duties and any discounts BUT excluding VAT. **VAT shall be paid in accordance with the current VAT regulations.**



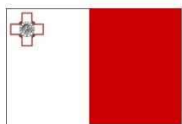
Quotation Reference Number:
ERDF.PA 5.0106/3.1

Quotation Title:
**CALL FOR QUOTATIONS FOR THE SUPPLY AND INSTALLATION OF FIRE
ALARM SYSTEMS AT ST DOMINIC PRIORY IN RABAT**

Date Published: **24 May 2019**

Deadline for Submission: **10 June 2019** at 09:30am **CET/CEST**

Quotation Opening: **10 June 2019** at 10:00am **CET/CEST**



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 Funds; 20% National Funds



 Please consider your environmental responsibility before printing.

Humanitas Foundation c/o St Dominic Priory

St Dominic Square, Rabat, Malta

Project Leader: Fr Chris Caruana

Tel: 21454592 Email: humanitasmalta@gmail.com

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## SECTION 1 - INSTRUCTIONS TO ECONOMIC OPERATORS

### 1. General Instructions

- 1.1 In submitting a quotation, the Economic Operator accepts in full and in its entirety, the content of this quotation document, including any subsequent Clarifications issued by the Contracting Authority (CA), whatever the economic operator's own corresponding conditions may be, which through the submission of the quotation is waived. Economic Operators are expected to examine carefully and comply with all instructions, forms, contract provisions and specifications contained in this document. No account can be taken of any reservation in the quotation in respect of the procurement documents; any disagreement, contradiction, alteration or deviation shall lead to the offer not being considered any further.

**Note:**

Where in this document a standard is bidder, 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 bidder are equivalent to the standards requested by the Contracting Authority.

- 1.2 The subject of this call for quotations is the supply and installation of fire alarm systems for the cultural and religious tourism experience within at the St Dominic Priory in Rabat.
- 1.3 The place of acceptance of the supplies/works shall be St Dominic Priory, the time-limits for the execution of the contract shall be 45 days, and the INCOTERM<sup>2010</sup> applicable shall be **Delivery Duty Paid (DDP)**.
- 1.4 This is a global price contract.
- 1.5 The Contracting Authority for this quotation is the Humanitas Foundation.

### 2. Timetable

|                                                                                                                                                                          | DATE         | TIME  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|
| Clarification Meeting/Site Visit (Refer to Clause 7.1)                                                                                                                   | 28 May 2019  | 09:00 |
| Deadline for request for any additional information from the NGO<br>Clarification requests should be addressed to: <i>NGOs e-mail address</i>                            | 31 May 2019  | 23:00 |
| Last date on which additional information can be issued by the NGO                                                                                                       | 5 June 2019  | 23:00 |
| Deadline for submission of quotations/quotation opening session<br>(unless otherwise modified in terms of Clause 10.1 of the General Rules Governing Tendering for NGOs) | 10 June 2019 | 09:30 |
| * All times Central European Time (CET) / Central European Summer Time (CEST) as applicable                                                                              |              |       |

### **3. Variant Solutions**

- 3.1 Variant solutions cannot be applied for quotations.

### **4. Financing**

- 4.1 The project is part-financed by the European Union, in accordance with the rules of European Regional Development Fund Operational Programme 1 - European Structural and Investment Funds 2014-2020.

### **5. 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**

- (i) Declare agreement, conformity and compliance with the General Rules Governing Tenders for NGOs.
- (iii) Declare agreement, conformity and compliance with the provisions of the Statement on Conditions of Employment.

#### **(B) Exclusion (including Blacklisting) and Selection Criteria.** (Note 2)

- (i) Declaration concerning exclusion grounds
- (ii) Declaration concerning Selection Criteria (not applicable for call for quotations)

#### **(C) Technical Specifications**

- (i) Bidder's Technical Offer in response to specifications. (Note 3)
- (ii) **Literature** as per Form marked 'Literature List' to be submitted with the Technical offer at bidding stage.

**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)

- (iii) **Samples** of the required items listed in the Technical Specifications ARE NOT REQUIRED AT QUOTATION SUBMISSION STAGE

The Quotation Evaluation Committee will, if it so requires, ask bidders to supplement the technical offer already submitted with samples of any of the required items. Such a request will be sought from the Bidders during the Adjudication Stage and must be provided within five (5) days of being notified to do so. (Note 3)

#### **(D) Financial Offer**

- (i) The Quotation Form and Bidder's Declaration are to be completed and submitted with the offer; <sup>(Note 3)</sup>
- (ii) A Financial Plan - A financial offer calculated on the basis of **Grand Total** for the supplies tendered. <sup>(Note 3)</sup>

In case of any discrepancy between the information provided in the Financial Bid Form and the Quotation Form and Bidder's Declaration, unless there are any 'arithmetical corrections', the latter shall prevail.

**Notes to Clause 4:**

1. *Not applicable for quotations.*
2. *Bidders will be requested to either clarify/rectify any incorrect and/or incomplete documentation, and/or submit any missing documents within five working days from notification. Rectifications are free of charge.*
3. *No rectification shall be allowed. Only clarifications on the submitted information may be requested.*

## **6. Tender Guarantee (Bid Bond)**

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

## **7. Clarification Meeting/Site Visit/Workshop**

- 7.1 A clarification meeting will be held on the date and time indicated in Clause 2, at St Dominic's Priory in St Dominic Square, Rabat, Malta to answer any questions on the quotation document which have been forwarded in writing, or are raised during the same meeting. Minutes will be taken during the meeting, and these (together with any clarifications in response to written requests which are not addressed during the meeting) shall be posted online on the NGOs website as a clarification note as per Clause 6.1 of the General Rules Governing Tendering for NGOs (version 1.0).

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

## **8. Criteria for Award**

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

## SECTION 2 - EXTRACTS FROM THE PUBLIC PROCUREMENT REGULATIONS

*Part IX of the Public Procurement Regulations: Appeals from decisions taken after the closing date for the submissions of an offer.*

**270.** Where the estimated value of the public contract meets or exceeds five thousand euro (€5,000) any bidder 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 Public Contracts Review Board, which shall contain in a very clear manner the reasons for their complaints.

**271.** The objection shall be filed within ten (10) calendar days following the date on which the contracting authority or the authority responsible for the tendering process 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 bidder 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 contracting authority of the whole tender or if the tender is divided into lots according to the estimated value of the tender set by the contracting authority for each lot submitted by the bidder, 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 Public Contracts Review Board shall immediately notify the Director, the Ministerial Procurement Unit and, or the contracting authority, as the case may be, that an objection had been filed with his authority thereby immediately suspending the award procedure.

**275.** The Department of Contracts, the Ministerial Procurement Unit or the contracting authority involved, as the case may be, shall be precluded from concluding the contract during the period of ten (10) 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, the Ministerial Procurement Unit or the Special Contracts Committee or by the contracting authority, shall be made public by affixing it to the notice-board of the Department of Contracts, the Ministerial Procurement Unit or of the office of the contracting authority, 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 Department of Contracts;

(b) the appeal of the complainant shall also be affixed to the notice-board of the Public Contracts Review Board and shall be communicated by fax or by other electronic means to all participating bidders;

(c) the contracting authority and any interested party may, within ten (10) calendar days from the day on which the appeal is affixed to the notice board of the Review Board 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 they shall also be uploaded on the government's eProcurement platform;

(d) the authority responsible for the tendering process shall within ten (10) days forward to the chairman of the Public Contracts Review Board all documentation pertaining to the call for tenders in question including files and tenders submitted;

(e) the secretary of the Review Board shall inform all the participants of the call for tenders, the Department of Contracts, the Ministerial Procurement Unit and the contracting authority of the date or dates, as the case may be, when the appeal will be heard;

(f) 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 (6) 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;

(g) the secretary of the Review Board shall keep a record of the grounds of each adjournment and of everything done in each sitting;

(h) after evaluating all the evidence and after considering all submissions put forward by the parties, the Public Contracts Review Board shall decide whether to accede or reject the appeal or even cancel the call if it appears to it that this is best in the circumstances of the case.

## 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.

### *Article 2: Law Applicable 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*

- 3.1 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 financial bid form (after arithmetical corrections)/breakdown;
  - (g) the tender declarations;
  - (h) any other documents forming part of the contract.

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

### *Article 4: Communications*

- 4.1 Further to what is stated in the General Conditions, any communication should be addressed to:  
**Humanitas Foundation**  
c/o St Dominic Priory,  
St Dominic Square,  
Rabat, RBT 2521, Malta  
Tel: 2145 4592; Email: [humanitasmalta@gmail.com](mailto:humanitasmalta@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.

The Project Leader may issue instructions to the Contractor at any time. The Contractor shall only take instructions from the appointed Technical Consultant and/or the Representative both appointed by the Contracting Authority.

### *Article 7: Supply of Documents*

- 7.4 User manuals, including drawings, of the items supplied must be provided to the Contracting Authority. These are required in PDF and Printed Document format. The language of the documentation must be in English.

Any documents presented by the Contractor are to be submitted for approval to the Contracting Authority and the Supervisor a priori. The contractor will allow 14 calendar days for such confirmation. If the confirmation is in the negative, the Contractor will have 7 days

to rectify the documents.

***Article 8: Assistance with Local Regulations***

- 8.3 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 9: The Contractor's Obligations***

- 9.1 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.

***Article 10: Origin***

- 10.1 As per general conditions

***Article 11: Performance Guarantee***

As per General Conditions.

***Article 12: Insurance***

- 12.1 In line with Article 12 of the General Conditions, the contractor is required to insure for the whole duration of the contract for the amount of €1,000,000 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.

In addition, each content producer should be liable and responsible for any equipment used to perform the contracted task.

***Article 13: Performance Programme (Timetable)***

- 13.1 The Contractor shall submit a programme of works for the approval of the supervisor. This should take into account the duration of the contract.
- 13.2 The timetable must include the order, the delivery, the installation and commissioning of the required items within this call for quotations.

***Article 14: Contractor's Drawings/Diagrams***

- 14.1 Further to what is stated in the General Conditions, any documents and drawings presented by the Contractor are to be submitted for approval to the Contracting Authority and the Supervisor a priori. The contractor will allow 10 calendar days for such confirmation. If the confirmation is in the negative, the Contractor will have 5 calendar days to rectify the drawings.
- 14.7 Further to what is stated in the General Conditions, all formally issued drawings will be supplied in both PDF and DWG format. Sketches, design development drawings, calculations and any other associated documentation will be supplied in PDF format.

The language of any documentation provided must be English.

***Article 15: Prices***

- 15.1 The contractor will ascertain that all the respective rates include double handling.

The Contractor shall be deemed to have taken into account in its quotation price all works, fees and costs that are necessary to complete the project, including the fully hand over in operational condition of the fire and alarm system.

***Article 16: Tax and Customs Arrangements***

- 16.4 Prices provided should be inclusive of duties and taxes, but exclusive of VAT.

***Article 17: Patents and Licenses***

- 17.1 Not applicable

***Article 18: Commencement Order***

- 18.1 The Commencement Date for this contract shall be the date of the order to commence with this assignment. The performance of the contract is to commence on order to start works. The order to start works will not be issued later than (1) month from the last date of signature shown on contract.

***Article 19: Period of Execution of Tasks***

- 19.1 The period of performance of this contract is 45 days from the Commencement indicated in the Order to Start Works.

- 19.2 *As per General Conditions.*

***Article 22: Modification to the Contract***

- 22.1 Subject to the provisions of the Public Procurement Regulations, the Contracting Authority reserves the right to vary the quantities specified by a maximum of 15% of the contract value which would have become necessary for the purpose of achieving the scope of the contract.

- 22.11 The provisions provided for in Article 22.11 of the General Conditions shall not be applicable to this contract.

- 22.12 The provisions provided for in Article 22.12 of the General Conditions shall not be applicable to this contract.

- 22.13 The bidder cannot change the brand of the material that he has proposed during the implementation of the contract without written authorization of the Supervisor.

***Article 25: Inspection and Testing***

- 25.2 The goods will be delivered to St Dominic's Priory in Rabat and will be inspected upon delivery and tested upon installation and commissioning.

***Article 26: Methods of Payment***

- 26.1 Payments will be made in Euro.

- 26.3 *As per General Conditions.*

- 26.5 *Further to the General Conditions, the following payment schedule applies*

| Payment Schedule |                                                                                                               |                           |
|------------------|---------------------------------------------------------------------------------------------------------------|---------------------------|
|                  |                                                                                                               |                           |
| Interim payment  | After delivery of the supply and delivery of all items                                                        | 40% of the Contract Value |
| Final Payment    | Following the installation and commissioning of the Fire and Alarm System as certified by the Project Manager | 60% of the Contract Value |

#### **Article 28: Delayed Payments**

- 28.1 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 26 of these Special Conditions. This period shall begin to run from the approval of these documents by the competent department referred to in Article 26.1 of these Special Conditions. These documents shall be approved either expressly or tacitly, in the absence of any written reaction in the 30 days following their receipt accompanied by the requisite documents.
- 28.2 Once the deadline laid down in Article 28.1 has expired, the Contractor may, within two (2) months of late payment, claim late-payment interest:
- a) meaning simple interest for late payment at a rate which is equal to the sum of the reference rate and at least eight percent (8%);
  - b) on the first day of the month in which the deadline expired.

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 29: Delivery**

- 29.1 Further to the provisions of the General Conditions, the Contractor shall bear all risks relating to the supplies until they are commissioned. The supplies shall be packaged so as to prevent their damage or deterioration in transit to their destination.
- 29.3 The packaging shall remain the property of the Contractor subject to respect for the environment.

#### **Article 32: Warranty**

- 32.1 This warranty shall remain valid for 2 years after the commissioning of the required items.

#### **Article 35: Breach of Contract**

- 35.3 Without prejudice to the Government's right to dissolve 'ipso jure' the contract in the case of infringement of any condition thereunder and apart from the deduction established for delay in delivery, any such infringement shall render the contractor, in each case, liable to a deduction by way of damages of 5 per cent of the value of the contract, unless the Government elects, with regard to each particular infringement, but not necessarily with regard to all infringements, to claim actual damages incurred.

***Article 41: 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 45: Other Provisions***

The Contractor shall be bound to conform and comply with Chapter 424 of The Laws of Malta (Occupational Health and Safety Authority Act 2000) and to all regulations/legal notices that form part of this Act, as well as any other national legislation, regulations, standards, and/or codes of practice, in effect during the execution of the contract, regarding health and safety issues as they apply for the Contractor's particular operating situation and nature of work activities.

## **Section 4: TECHNICAL SPECIFICATIONS** (Note 3)

### **TECHNICAL SPECIFICATION FOR FIRE ALARM SYSTEM**

#### **4.1 Scope of Works**

The Contractor is to supply, install, set, test and commission an analogue addressable fire detection and alarm system in the halls of the Priory at St Dominic's Convent, Rabat, Malta. The system shall also detect faults in the system and guard against false alarms. All the individual system components of the system shall be mutually compatible.

The system is to be classified for the protection of life (class L1) and for the protection of property (class P1).

#### **4.2 Regulations and Standards**

The fire detection and alarm system shall comply with the latest publications of the appropriate Maltese/ Harmonized Standards or British Standards (if a Maltese/ Harmonized Standard is not available).

In particular the fire detection and alarm system shall conform to the following standards as applicable:

- MSA EN 54 (all relevant parts)
- BS 7671 (IEE Wiring Regulations), "Requirements for electrical installations"
- National "Electricity Supply Regulations"

Equipment shall comply with the requirements of electromagnetic compatibility of the EMC Directive (EC Directive 89/336/EEC) and all amendments. It shall be designed and manufactured to such a standard that it shall not be unduly affected by magnetic interference and that it shall not cause excessive electromagnetic emissions.

#### **4.3 Fire Alarm Panel (FAP)**

The fire alarm and indicating panel shall be analogue addressable with a minimum of 2 loop circuits, each up to 500 metre and expandable. Each loop circuit shall have a capacity of at least 120 input and output type devices (detectors, call points, sounders, controllers etc.).

The panel shall conform to the following specification as a minimum:

Programming of the software shall enable the set-up of a fire detection and alarm system for the site. When changes in the system are done, such as addition or removal of devices, re-programming of the entire system shall preferably not be required but only changes in programming associated with these devices shall be required. The price of the panel shall include the cost of software and any software operating licences as applicable.

The software shall ideally be capable of distinguishing between real fires and false alarms.

Panel shall preferably be able to connect to any future repeater panels installed within the building.

In case of a fire, the system shall automatically signal the fire alarm for evacuation to all areas of the system.

The panel shall carry out active self-monitoring. Sensors shall be tested individually, contamination shall be monitored regularly and the calibration of sensors shall be adjusted to compensate. A signal shall be raised when the requirement of cleaning of sensors is identified by the system. A zone with faulty sensors or faulty cable or with other source of data corruption shall be isolated by the system by means of the loop isolators and a fault message shall be signalled to the operator. Self-testing shall be carried automatically by the system but manual testing shall also be possible.

All loop devices shall be individually addressed in order that each device shall have a unique identification. Addressing shall be independent of the wiring layout of the system. If a device address is moved, removed, added or suffers damage, the system shall sound the panel buzzer and post an alert message on the liquid crystal display of the panel.

The addressable two wire loop shall be suitable for the connection of sensors, call points, controllers and a number of power devices such as sounders and remote mimic panels which are powered directly from the loop.

Alarm sounders shall be connected directly on the detector loop wiring and/or on dedicated alarm lines wired directly from the control panel and/or on alarm lines from alarm line interface units connected to the detection loop.

The fire alarm panel shall be equipped with a surface mounting, corrosion protected cabinet complete with:

- an alphanumeric liquid crystal display
- built-in keyboard
- an integral printer or facilities for connection of an external printer
- fire indicator
- user controls
- power indicator
- warning indicator (on system changes)
- a fault indicator
- a battery for power backup with a capacity large enough for 24 hours normal operation followed by 30 minutes at full alarm load.
- a suitable battery charger for a recharge time of 8 hours
- an internal buzzer to signal a fault condition (intermittent sound) and a fire condition (continuous sound).

An automatic autodialler shall be provided. It shall be able to operate with **both** a direct telephone line/extension and a SIM card, and be able to dial a minimum of four different telephone numbers in order to transmit a pre-recorded message. Auto diallers shall also have the facility to operate with mobile technology (GSM Modules), which makes use of a SIM Card having Network type: GSM/HSPA/LTE; 2G Bands GSM 850/900/1800/1900 in order to automatically transmit a pre-recorded message.

The electrical supply to the panel shall be 230V, 50 Hz from a dedicated electrical supply. The electrical supply shall be labelled FIRE ALARM - DO NOT SWITCH OFF.

#### **4.4 Interface with other Systems**

The fire alarm signal shall be relayed to other systems by means of a number of volt-free contacts which shall be incorporated in the panel. The other systems include magnetic door release of Fire Doors and muting of any sound systems, amongst others.

#### **4.5 Zones**

At this stage the building shall be split up into one zone in accordance with the fire compartment and layout of the refurbishment area..

A plan of the fire alarm system installation is to be installed near the control panel to assist in the identification of the location of detectors.

#### **4.6 Photoelectric Smoke Detectors**

Photoelectric smoke detectors shall be analogue addressable with a high resistance to false alarms by high humidity, draughts, dust and insects. The detectors shall be true analogue devices, shall support 2 way communication with the fire alarm panel and shall have a unique address. Removal of a detector from its base must not cause the address to be lost off line.

The base of the detector shall be common to analogue smoke and heat detectors.

A light emitting diode shall illuminate when a detector is in alarm. The detector and base shall be finished in white. Detectors shall have a facility to connect a remote LED alarm indicator.

A dust cover is to be provided to minimise contamination during installation works and is to be removed only before commissioning.

#### **4.7 Heat Detectors**

Heat detectors shall be analogue addressable with a high resistance to false alarms by high humidity, draughts, dust and insects. The detectors shall be true analogue devices, shall support 2 way communication with the fire alarm panel and shall have a unique address. Removal of a detector from its base must not cause the address to be lost off line.

The detector sensitivity shall be adjustable from the fire alarm panel and with a range of 50 deg. C. to 90 deg. C.

The base of the detector shall be common to analogue ionization and heat detectors.

A light emitting diode shall illuminate when a detector is in alarm. The detector and base shall be finished in white. Detectors shall have a facility to connect a remote LED alarm indicator.

A dust cover is to be provided to minimise contamination during installation works and is to be removed only before commissioning.

#### **4.8 Manual Call Points**

Manual call points shall be analogue addressable with a high resistance to false alarms by high humidity, draughts, dust and insects. The detectors shall be true analogue devices, shall support 2 way communication with the fire alarm panel and shall have a unique address.

The break glass switch shall be held in place by a glass blank which has a thin plastic film laminated to its external surface to prevent fragmentation of the glass. A built-in LED shall illuminate when the call point is operated.

A test key and a mounting box shall be included with each manual call point.

Call points are to be mounted 1.4 m above the finished floor level unless indicated otherwise on site.

External manual call points shall be weatherproof.

#### **4.9 Alarm Sounders**

Analogue addressable loop wired fire alarm sounders shall be used. Their condition shall be monitored, tested, labelled, configured and disabled when necessary from the fire alarm panel.

The sound output level shall be at least 85 dB(A) at one metre distance from the device. The sound level of the sounder in rest rooms shall be set for a minimum of 75 dB(A) at the bedhead but not more than 80dB(A).

The sounder shall have selectable tones, continuous or intermittent. The tones of the fire alarm sounders shall be uniform and different from those of sounders of other systems.

In areas with high background noise, alarm sounders are to be equipped with a flashing Xenon beacon for an audio-visual alarm signal.

External sounders shall be weatherproof.

#### **4.10 Isolators**

Isolators shall be installed on the loop in order that only a minimal part of the system will be affected by a short circuit fault. The isolator shall automatically bring the disconnected section back in service when the short circuit is repaired. When an isolator has operated, a yellow LED shall be continuously lit to indicate that the isolator is in the isolation mode.

Isolators shall be installed at the boundaries of fire compartments.

#### **4.11 Input/Output Loop Interface Units**

Input/Output interface units shall provide output signals in order to perform actuations on other systems, such as the passenger lifts.

The units shall also accept input signals and display them on the fire alarm panel.

#### 4.12 Automatic door release unit

The automatic door release unit shall be used to retain a single or two leaf fire door, as the case may be, in the open position in normal conditions and to release the fire door automatically when a fire alarm occurs or if the power supply fails. The solenoid part of the unit shall be suitably fitted to the wall or ceiling according to the location and the required hardware and accessories are to be included in the price. The keep plates shall be fitted to the doors. A manual release button shall be fitted on the solenoid unit and the holding force shall be at least 40 Kgf.

The relay interface unit which shall be required to link the fire alarm panel to the automatic door release unit shall be installed in the false ceiling together with any required power supply unit(s) and all associated items are to be included in the price together with all wiring and conduit.

#### 4.13 Wiring and Cabling

Wiring of the fire alarm system is to conform with the instructions of the manufacturer of the fire alarm system. The wiring is to be segregated from any other wiring of other services and conductor cross-section is to be adequate for the circuit current and voltage drop. The fire alarm cable is to be suitable to maintain circuit integrity during a fire (fire resistant). All fire cable shall be white with the exception of fire cables going to the sounders, which shall be red.

Wiring of the fire alarm system shall be carried out in surface laid fire integrity cable as defined in BS5839: 1988 Part 1 and shall be tested for compliance with performance category CWZ of BS6387. The flame propagation standards shall be to BS4066 Part 3/IEC 332 Part 3.

The circuit integrity under fire alarm conditions shall be:

- Resistance to fire alone: 3 hours at 750°C (IEC 331) hours at 950°C (BS6387 Cat C)
- Resistance to fire with water: 15 minutes at 750°C plus 15 minutes with water spray
- Resistance to fire and mechanical shock: 15 minutes at 950°C

It shall provide 100% electrostatic screening.

The installation shall be carried out in a neat fashion and all cable runs shall be made parallel or perpendicular to the ceiling beams and passed neatly under the beams. The minimum- bending radius of the installation shall be not less than six times the diameter of the cable.

Fire resistant cable slips shall be used – PVC clips shall not be allowed.

Clips shall be installed at the following spacing in line with the recommendation of the manufacturers for these cables:

| <b>Cable Diameter</b>                             | <b>Maximum Spacing</b> |                      |
|---------------------------------------------------|------------------------|----------------------|
|                                                   | <b>Horizontal (mm)</b> | <b>Vertical (mm)</b> |
| Cables whose overall diameter does not exceed 9mm | 250mm                  | 400mm                |
| Above 9mm but not exceeding 15mm                  | 300mm                  | 400mm                |
| Exceeding 15mm but not exceeding 20mm             | 350mm                  | 400mm                |

Care should be made in terminating the cables onto detectors and call points. Wiring shall be terminated in detectors via a mounting back-box. This shall enable the detector base to fit directly on it within a slight recess and shall provide the accurate fit and the protection against water and dust. It shall have three glanded cable entry holes. All cables shall be terminated via suitable cable glands.

All cables and interconnections which are required for the Fire Alarm Systems shall fall under this specification and are to be included in the prices of the system.

Extra low voltage cable runs are to be kept a sufficient distance from power cable runs in order to avoid signal interference. The prices for equipment and cabling are to include all the required connectors. No straight-through joints in cables shall be allowed.

#### **4.14 Testing and Commissioning.**

On completion of the installation the Contractor shall carry out a full inspection of the fire detection and alarm system. Each smoke and heat detector, call point, sounder and other devices shall be labelled with the assigned unique reference number. The Contractor shall then carry out settings, testing and commissioning of the system, taking care to follow the manufacturers' instructions.

The Contractor shall provide all test instruments, materials and labour for the testing and commissioning and shall give the Engineer five working days notice of final commissioning tests. Records of tests are to be submitted to the Engineer in writing and by means of a print-out.

As part of commissioning, the Contractor shall certify that all the equipment and the installation of the Fire Alarm System conform to the relevant parts of MSA EN 54. The Contractor shall also issue a certificate of test to the Client.

## SECTION 5 - SUPPLEMENTARY DOCUMENTATION

### ***5.1 - Draft Contract Form***

### ***5.2 - Glossary***

These have been provided with the quotation documentation.

### ***5.4 - General Conditions of Contract***

The full set of General Conditions for Works Contracts, for Supplies Contracts and for Services Contracts (latest version as applicable on the date of the publication of this tender) can be viewed/downloaded from the 'Resources Section' at:

[www.etenders.gov.mt](http://www.etenders.gov.mt)

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.

It is important to note that since this call for quotations is being issued by an NGO, any reference to the Central Government Authority and the Department of Contracts within the General Conditions, should be read as the Contracting Authority.