



**Republic of Maldives**

**EMPLOYER'S REQUIREMENT**

**for**

**Remedial Work and Completion of  
100 Housing Units at  
Hdh.Nolhivaranfaru**

**Ministry of Housing and Urban Development  
Issued on: January 2020**

## 1.0 Employers Requirement

### Scope of Works

- a) This project includes 100 Housing units terminated at different stages of construction. The structure of all the Housing units is completed.

|            | CATEGORY   | QTY |
|------------|------------|-----|
| ORANGE     | ORANGE     | 4   |
| RED        | RED        | 6   |
| MAGENTA    | MAGENTA    | 18  |
| WHITE      | WHITE      | 6   |
| GREY       | GREY       | 17  |
| CYAN       | CYAN       | 8   |
| GREEN      | GREEN      | 13  |
| PURPLE     | PURPLE     | 13  |
| BLUE       | BLUE       | 13  |
| BLACK      | BLACK      | 1   |
| DARK GREEN | DARK GREEN | 1   |
| TOTAL      |            | 100 |

- b) The stages are categorized based on the progress of work as per annex 2.
- c) Progress of each of these housing units is presented in annex 3A and annex 3B. Bidders are to check and verify and give prices accordingly.
- d) A typical floor plan for the Housing units is given in annex 4. Floor plan may vary.
- e) 100 housing unit completions is a continuation of partially completed structures, thus the Contractor is required to do a detailed assessment of the remaining works.
- f) Contractor is required to submit detailed drawings for the existing structures. The contractor shall submit the raw soft copies of all the below mentioned detailed design documents
- Architectural drawings
  - Electrical drawings including wiring diagrams, lighting fixtures, control panels, etc.
  - Mechanical, including air conditioning and/or ventilation systems
  - Plumbing layout including pipe diagrams and schedules, fixtures, etc.
- g) The Works shall be carried out in accordance with the approved drawings, Bill of Quantities and standard technical specifications

- h) The Contractor shall be responsible for acquiring all the materials required for the completion of the housing units.
- i) Contractor is required to propose appropriate solutions and submit work methodology for repair of the existing structures which includes mould remediation, cracks, corrosion of exposed steel bars and repair of damp patches.
- j) Contractor is required to remove all fixed elements of the units which are not complying structural standards.
- k) All purlins and rafters which are defected must be removed and replaced with an appropriate material and specification
- l) All existing roofing sheets must be removed and replaced with an appropriate material and specification
- m) All Rockwool insulations must be removed and replaced with an appropriate material and specification
- n) Ceiling areas damaged needs to be replaced with an appropriate material and specification.
- o) All doors and windows that are already fixed needs to be sealed with an appropriate material.
- p) Damaged Tiling areas need to be replaced.
- q) Electrical Cables, Electrical fittings, sanitary ware, doors and windows that are damaged need to be replaced with appropriate material and specification.
- r) Finishing works are to be carried out as per sub-clauses below
- s) An elementary Bill of Quantities for the housing units are required to be submitted by the bidders as per the format attached at annex 5
- t) Final drawings, detailed BOQ and technical specifications shall be provided by the Contractor and shall include provisions for all civil, architectural, structural, electrical, plumbing and firefighting disciplines, once detailed drawings are approved by the employer.

#### **1.1.1 Specific requirements:**

1. Connection of utilities (electricity, water & sewerage) to that main lines shall be included for each individual units
2. Site clearing and demarcation of work zones and bypasses. Contractor is required to remove and transport all construction waste and debris including

the existing construction waste and debris to a waste management facility such as K.Thilafushi

**General guideline:**

- a) **Electrical installation:** Wiring for lighting and power shall be concealed conduit except for spaces within DB's closet and area above false ceiling, which shall be exposed conduit/trunking. In each housing unit minimum of three electric sockets in each room and one data/media and telephone points shall be provided. All electrical wiring shall be in accordance with the guidelines set out by the State Electric Company Ltd (STELCO).
- b) **Fire Rating:** structural members and walls are to be designed to accommodate the requirement of the local fire department. All structures above the ground floor shall be designed for a minimum period of 2 hours fire rating.
- c) **Fire Protection System:** Portable fire extinguishers and microprocessor based addressable automatic fire detection and alarm services for life safety protection.
- d) **Site Visit:** The Bidder, at the Bidder's own responsibility and risk, is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- e) **Supervision, inspection & test plan:** the supervision, inspection and testing of the materials and works shall be carried out in accordance to normal industrial standards and practice, specifications, manuals and guidelines used in Maldives and as approved by MHUD.
- f) **Earthing System:** shall be installed in accordance with the requirement of BS Code of Practice BS 7430, IEC 62305 and Rules and Regulations of "STELCO" and "MEA" to provide a low impedance earthing systems and connections for equipment earthing.
- g) **Approval of Materials and Systems**  
The materials and systems to be used in the building shall be approved by the Employer prior to use or installation.

## h) Luminaires

Adequate lighting shall be installed and the illumination levels shall generally be in accordance to international IES and IEC standards.

|   |   |
|---|---|
| Sitting Room / Dining Room /<br>Kitchen / Toilets | 300 - 500 lux                           |
| Services Room / Garbage Room                      | 200 lux                                 |
| Store Room  | 200 lux                                 |
| Corridor / Lobby                                  | 150 lux                                 |
| Premises within Landscaped area                   | 100-150 lux at working plane of<br>0.2m |

### 1.1.2 Additional Information

1. Final price should be exclusive of the import duty for any imported construction material, equipment, machinery, etc.
2. The price also should include electricity and water required for the project.
3. Project costing - The project is a lump sum contract. The Contractor shall submit a work breakdown schedule within ten working days from project award, indicating the price break down and the durations for each task. The work breakdown schedule will then be used as a basis for measuring the works completed in order to issue the interim payments.
4. It is contractors' responsibility to allow for and obtain all the permits required from regulatory authorities / service providers etc.
5. Demolition waste and debris shall be transported to designated waste management site.
6. Finalized work schedule- The contractor shall submit a finalized work schedule within 10 days from the date of receipt of the Letter of Acceptance.

### 1.2 Expected Schedule of Finishes

| Location/Area | Floor                           | Skirting                  | Wall                         | Ceiling                  | Partition  | Doors/window   |
|---------------|---------------------------------|---------------------------|------------------------------|--------------------------|------------|--|
| Common areas  | Homogeneous/<br>Porcelain tiles | Homogeneous/<br>Porcelain | Skim coating and<br>emulsion | Fibrous board<br>ceiling | Brick wall | Powder coated<br>aluminum frame<br>with tinted, clear or |

|                                       |   |                   |                                 |                               |                       |   |
|---------------------------------------|---|-------------------|---------------------------------|-------------------------------|-----------------------|---|
|                                       |   | tiles             | paint                           |                               |                       | frosted glass where appropriate.  |
| <b>Sitting room &amp; living area</b> | Homogeneous/ Porcelain tiles  | Homogeneous tiles | Skim coating and emulsion paint | Fibrous board ceiling         | Brick wall            | Powder coated aluminum frame with tinted frosted glass / Timber door frame with timber panels |
| <b>Toilets</b>                        | Non- slippery homogeneous tiles + 2 coats of waterproofing (brush bond) | -                 | Ceramic wall tiles              | Fibrous plaster board ceiling | Brick wall            | Powder coated aluminum frame with tinted frosted glass / Timber door frame with timber panels |
| <b>Services room</b>                  | Titanium finish   | -                 | Skim coating and emulsion paint | -                             | Concrete / Brick wall | Powder coated aluminum frame with aluminum panels   |
| <b>Outdoor tiled area</b>             | Homogeneous tiles + 2 coats of waterproofing (brush bond)               | Homogeneous tiles | Ceramic wall tiles              | -                             | Concrete / Brick wall | Powder coated aluminum frame with tinted / clear glass  |

Materials, fixtures and fittings used on exterior walls and surfaces shall be weather-proof, external finishing materials, including fixtures and fittings.

All the major materials, fixtures and fittings shall be submitted to the Client for approval prior to installation or application.

### 1.3 General Design Obligations of the Contractor

1. The Contractor shall carry out, and be responsible for the design of the Works. Basic design shall be in accordance with the concept drawings provided. Detail Design shall be prepared by qualified designers who comply with the following criteria:

**a) Architect**

- i. A registered architect at his/her country with minimum 07 years of architectural design experience. Must have designed at least 2 buildings of similar scale within this period.

**b) Civil/Structural Engineer**

- i. A registered engineer at his/her country with 07 years of experience in structural design of buildings of similar scale.

**c) Services Engineer**

- i. Minimum bachelor's degree and 07 years of experience in service design of buildings of similar scale.

**1.3.1 Tests on Completion**

Upon completion of the building Contractor shall allow for testing of the services installed in the building as part of commissioning.

**1.3.2 Contractors' Documents**

The Contractor shall submit an assessment report which includes defects and work methodology for repair of the existing structures for approval of the Employer. Upon completion of civil work, contractor is required to submit as-built drawings and final progress payment will be released upon approval of the as-built drawings. The materials used for construction shall be of good quality, with a design life of 50 years and where necessary design shall incorporate renewable energy and sustainable design components where practical.

**1.3.3 The Bidder shall submit the following with the bid**

1. Elementary Bill of Quantities as per the given format.
2. Proposed equipment for works and work methodology.
3. Proposed Personnel as per clause 1.3
4. Preliminary work schedule - The contractor shall submit a proposed work schedule with the bid. This work schedule shall indicate the major works to be carried out under the scope of the project. The work schedule shall clearly show the proposed start and end dates for all the project stages and the total project duration proposed.