SECTION 7: EMPLOYER’S REQUIREMENTS

DESIGN AND BUILD OF INTERACTIVE WATER FOUNTAIN - 2017

Hulhumalé, Republic of Maldives
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1. General Background

The contractor shall design, execute and complete all the Works and remedy the defect therein.
In general, the works are as follows
- Study and review existing architectural, structural, and Service designs.
- Preparation of detail design drawings, BOQ and specification.
- Fabrication, Supply and installation of Water Fountain including control room to complete as per approved detail drawings and specifications.

This work will be categorized in the following stages
- Design stage
- Construction stage
- Maintenance stage

The total duration of the project shall not be more than 210 calendar days.

2. Design Stage

Contractor shall complete the detail design prior to construction work, in accordance to Employer’s requirement, and the regulation and guidelines of relevant local authorities. The contractor shall not deviate his detail design from the design brief and Conceptual drawings provided by the Employer except for those employer gives consent. The Design Stage should be separated in the work Program indicating the important milestones of Design Stage considering the review period (Feedback period). The review period is 14 calendar days. Thus the review period is included in the Design Stage.

Employer will provide the support to give clarification to any queries which the contractor would require at any stage. The design shall take into account cost effectiveness as per general standards.

With the submission of Contractor’s Documents, the Employer would provide the necessary feedback. In giving feedbacks the Employer would check whether if it fits the design guidelines, function, aesthetics, materials, etc. and a two way dialogues will be conducted in order to attain satisfactory level of work.

The Contractor shall complete the Contractor’s Documents in the order given in “2.2 Contractor’s Documents related to Design Stage”
The Time of Completion for Design Stage shall be maximum 45 calendar days.

The Design Stage is only deemed to be completed when the Employer has issued the approval for all "2.2 Contractor’s Documents related to Design Stage”.

2.1 Scope of works related to Design Stage
The major scope of works related to design stage include (but not limited to):
- Study, review and comment on the existing network designs available. Check for the practically and viability of existing designs provided by the Employer and if required, prepare alternative design.
- Prepare Environmental Impact Assessment report and obtain approval (if required)
- Prepare detail design documents in accordance to the requirement of Employer. The documents include:
  o Detail drawing
  o Calculations
  o Detail BOQ
  o Specifications
  o Reports

2.2 Contractor’s Documents related to Design Stage
Following are the Contractor’s Document in the order that needed to be completed during the Design Stage.

| 2.2.1 | Detailed Architectural drawings |
| 2.2.2 | Detailed Structural drawings |
| 2.2.3 | Detailed Service drawings (Electrical and plumbing) |
| 2.2.4 | Electrical load calculations, voltage drop calculations, pressure drop calculations |
| 2.2.5 | Material schedule (In MS Word & PDF Format) |
| 2.2.6 | Design Specifications (In MS Word & PDF Format) |
| 2.2.7 | Environmental Impact Assessment Report (if necessary) |
| 2.2.8 | Structural calculations |
| 2.2.9 | Soil investigation report (if necessary) |
| 2.2.10 | BOQ (priced and unpriced) (In MS Excel & PDF Format) |
| 2.2.11 | Technical Specifications for  
  2.2.10.1 General Civil Works  
  2.2.10.2 Service work |
| 2.2.12 | An animation showing the feature of water fountain in accordance to the design brief |
Following the submission of all above Contractor’s Documents, the contractor shall submit
- Three (3) sets of Architectural, structural drawings and service drawings, Approved and Stamped by local Architectures and Engineers.
- Three (3) sets of all other drawings
- Soft copies of all drawings

3. Construction Stage

The Contractor shall commence the Permanent Works only when the Contractor receives approval for all “2.2 Contractor’s Documents related to Design Stage” from the Employer.

The Contractor shall execute the Works in accordance to the approved Drawings, Technical Specifications, Conditions of contract and compliance with requirements of relevant authorities. The work progress and quality of work will be inspected by the Employer throughout the Construction Stage, to check whether the Works confirm with the above mentioned documents. The Contractor shall facilitate the Employer to carry out these inspections.

The contractor shall submit Work program, which shall include;
   (a) **Manpower schedule** showing the number and timing of required personals for Works
   (b) **Materials supply schedule** showing the supplying number and timing of required materials
   (c) **Equipment schedule** showing the supplying number and timing of major apparatus, machinery, vehicles and any other thing.
      The Employer will check whether the submitted program is practical based on the above information and approve the work program

The Time of Completion for Construction Stage shall not exceed maximum duration of 165 calendar days.

The Construction stage is only deemed to be completed when the Employer has issued the “Taking-Over Certificate” in accordance to the Conditions of Contact.

3.1 Scope of works related to Construction Stage
The major scope of works is Fabrication, Supply and installation of Water Fountain including control room to complete ready for operation, as per approved detail drawings and specifications. The scope shall include (but not limited to);
   - Execution and completion of all civil work for the fountain and control room,
- Execution, completion of all services (plumbing and electrical) including its all connections that are required to be obtained from the local service providers and commissioning the same.
- Fabrication, Supply and installation of all equipment and accessories to complete ready for operation.

3.2 Contractor’s Documents related to Construction Stage
The Contractor shall submit all the documents stated in Employer’s Requirements and Conditions of Contract for Review and approval.

4. Maintenance Stage
The Contractor shall rectify any defect notified prior and during the Maintenance stage in accordance to the approved Drawings, Technical Specifications, Conditions of contract and compliance with requirements of relevant authorities.

The Maintenance period shall be minimum duration of 365 calendar days.

The Maintenance stage is only deemed to be completed when the Employer has issued the “Performance Certificate” in accordance to the Conditions of Contact.

4.1 Contractor’s Documents related to Maintenance Stage
The Contractor shall submit all the documents stated in Employer’s Requirements and Conditions of Contract for Review and approval.

5. Payment Terms
This Project will be financed by the Employer and payment will be made in accordance the Conditions of Contract.

Payment for the project will be made Based on the Actual progress percentage.

6. Conditions of Contract:
The Conditions of Contract comprise the “General Conditions” (Section 5), which form part of the “Conditions of Contract for EPC/Turnkey Projects” First Edition 1999 published by the Federation Internationale des Ingenieurs-Conseils (FIDIC), and the following “Particular Conditions” (Section 6), which include amendments and additions to such General Conditions.

7. Standards:
All Construction Works shall be carried out in accordance Approved Drawing in
compliance with the Technical specifications. If no particular standard is quoted then the appropriate “British Standard” shall apply.

8. Work progress:
The actual work progress will be determined by the Employer in reference to the submitted Work program.

9. Attachments:
Please find attached the following documents:
- Design brief
- Concept drawing.

10. Additional information;
There is no water, sewage and electricity near by the site. Thus its responsibility of the contractor to connect the water and electricity to the permanent structure from the nearest possible network/substation. It is also the responsibility of the contractor to connect the flush out to the nearest waste network line.

Contractors yard to be allocated within the site. If the contractor request for an additional yard (temporary land), it will be allocated for free of charge. A security deposit will be taken for the temporary land MVR15 per sqft.