
PROCUREMENT ORDER
for
HYDROGRAPHIC SURVEY of
PORT BASIN and CHANNEL

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1 INTRODUCTION

Mogadishu Port in Somalia intends to schedule a dredging scheme for the 2021 development and rehabilitation planning as part of the Port's Implementation Plan.

Within this context, as part of the preparations for dredging scheme, bathymetric underwater survey of the port basin and approach channel needs to be executed.

Works are intended to be outsourced to an eligible Contractor having proper experience in this field and preferably in the location of the works, Mogadishu.

This document defines the technical and nontechnical aspects of this work for tendering purposes.

2 PARTIES

The Authority: Mogadishu Port Authority as a representative of the Ministry of Ports and Marine Transport

The Employer: Mogadishu Port Authority as a representative of the Ministry of Ports and Marine Transport and Mogadishu Alport Corp. Albayrak-Somalia

The Engineer: HPC Hamburg Port Consulting GmbH and Sellhorn Ingenieurgesellschaft mbH J.V.

3 SCOPE OF THE WORK

Bathymetric survey work shall cover the port basin and the approach channel as shown in below figures.



Figure 1: Mogadishu Port, Somalia



Figure 2: Bathymetric Survey Area

Cumulative bathymetric survey area is approximately 757,000 m² as shown in Figure 2.

The Contractor is to perform anything necessary to complete the work including the followings but not limited to:

The procurement of all kinds of materials, equipment, manufacturing, assembly, all kinds of workmanship, any relevant expense for labors including flight tickets, tools, hand tools, horizontal and vertical transportation thereof, general expenses, all kinds of taxes, insurance premiums, relevant quality control, planning, organization, conducting the necessary tests and inspections, supplying models, services, all other activities required by the work except client free-issue items mentioned within this document.

Importing or exporting of any material, plant, machinery, equipment or any other delivery of the goods related to the Work shall be in the responsibility of the Contractor including clearance through customs. Any custom duties, custom fees or custom taxes that may arise due to importing and exporting activities shall be borne by the Contractor except client free-issue items mentioned within this document.

On the other hand, support vessel, accommodation, food etc. during the bathymetric survey will be provided by the Employer.

In relation to the execution of the Works, the Employer shall provide all permits, permissions, licenses and/or approvals etc. as required/applicable by the Laws/the Authority and shall borne all related taxes, duties and fees. The Contractor shall be responsible to comply with the conditions of obtained permits, permissions, licenses and/or approvals.

4 SCHEDULE

Works are intended to be executed within the first quarter of 2021 at the second half of February.

5 SPECIFICATIONS

5.1. Method

Bathymetric survey shall be carried out by using single beam echosounding method with motion sensor and heave compensator.

5.2. Equipment

Contractor shall ensure supply, mobilization and installation of below listed type of equipment at job site, in proper working condition and having a valid calibration certificate (if necessary). The echo-sounding equipment will be calibrated prior to the commencement of each day's survey.

- Echo-sounder, single beam type
- Motion sensor heave compensator
- RTK GPS base station (with all necessary components)
- Tide gauge
- Computer (as interface and for data collection)
- Total station
- Level

Vessel that will be used as platform for echo sounder shall be provided by Mogadishu Port Management (The Employer).

5.3. Preparation

Echo sounder shall be installed on the vessel, together with heave compensator.

Tide level shall be determined with reference to a survey benchmark on land using total station and level.

RTK GPS base station shall be established on land, capable of transmitting reliable GPS information to echo sounder.

A survey plan shall be prepared and submitted to Port Management for approval prior to execution of the works. Survey plan shall communicate the list and types of equipment that will be used together with their certificates and maneuvering plan.

All survey levels are to be referenced to ZP (local Chart Datum) and that all dimensions shall be in meters. The level of accuracy for the hydrographic survey shall be 10mm. At Approach Channel, the target depth for termination of surveying will be -17.0 m ZP.

5.4. Execution

A day (or days) with favorable marine conditions (wave height < 30cm, wind velocity < 4 m/s) shall be selected as survey date(s).

Vessel shall be maneuvered over the survey area. Depth measurements shall be made at every 1 second interval and coupled with the position data transmitted by the GPS base station. Measured data shall be collected and logged by a suitable software. Calibration of measurements with respect to measured tide level shall be made at regular intervals.

Besides the complete port basin and established boundary of the approach channel, a 10-meter-wide zone around the perimeter of the survey area shall also be measured and logged.

6 REPORTING

Collected data shall be compiled using appropriate software. Final report shall be submitted in both electronic and hard copy formats. Electronic copies shall be in .dxf and .dwg format and submitted within flash drives, in 2 copies. Hard copies shall be submitted at a later stage.

Grid size for the final report shall be 1 meter by 1 meter. Contour lines shall be drawn in distinctive colors. The dwg format report shall have proper layer structure. It is also expected for the drawings to contain background information such as quay walls, breakwaters, beaches, rocky outcrops, cliffs, shoreline markers, etc. For probable protrusions (shipwreck, etc.), the location of the protrusion will be marked with a rectangular box object. The final output of the bathymetric survey will be presented in Autocad format as point file and as Civil 3D file.

In addition, written comprehensive conclusion report shall be submitted with one original and one revision based on Client/Engineer comments both in hard and digital copies.

The final report shall contain relevant information for all equipment components used, such as echo-sounding device, motion sensor, GPS transmitters and receivers, tide gauge, devices for measuring the velocity of sound waves in sea water, land based optical survey equipment, and other auxiliary equipment.

Furthermore, remarks related to marine conditions encountered, personnel, photographs and other notes will be part of this final submittal report.

7 AGREEMENT

This agreement together with the other Contract Documents forms the Contract for Hydrographic Survey of Port Basin and Channel in Mogadishu Port on date ... between **Ministry of Ports and Marine Transport represented by Mogadishu Port Authority and Mogadishu Alport Corp. Albayrak-Somalia** (hereinafter called “The Employer”) and (hereinafter called “The Contractor”)

7.1 Definitions

The Authority: Ministry of Ports and Marine Transport represented by the Mogadishu Port Authority

The Employer: Ministry of Ports and Marine Transport represented by the Mogadishu Port Authority and Mogadishu Alport Corp. Albayrak-Somalia

The Contractor:

The Engineer: HPC Hamburg Port Consulting GmbH and Sellhorn Ingenieurgesellschaft mbH J.V.

7.2 Scope of Work

As detailed under titles 1.Introduction, 2.Parties, 3.Scope of Work, 4.Schedule, 5.Specifications and 6.Reporting.

7.3 Site

City: Mogadishu

Country: SOMALIA

7.4 Contract Price

This Contract is based on the Fixed Unit Prices as contained under title 7.17 Payment Schedule. Total Contract Price is USD + VAT including any Taxes, Fees and any other relevant expenses.

7.5 Time for Completion

The Contractor shall complete the whole of the Works which is described within this document in maximum 15 Calendar Days after completion of the Mobilization.

7.6 Method of Measurement

Final measurement shall be made of the net actual quantity of executed Bathymetric Survey at the site in square meter. The completed work shall be remeasurable as per the actual quantity completed at the site in case of any revision against the initial quantities with the prior approval of the Employer.

7.7 Currencies of Payment

All payments shall be paid in US Dollars.

7.8 Bank Accounts

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7.9 Language

The ruling language of this Contract shall be English. In case any part of the Contract (including all Contract Documents) is written in more than one language, the version which is in English language shall prevail. The language that will be used for all types of communications shall be in English.

7.10 Law

This Contract shall be governed in accordance with the law of The Government of the Federal Republic of Somalia.

7.11 Permits

In relation to the execution of the Works, the Employer shall provide all permits, permissions, licenses and/or approvals etc. as required/applicable by the Laws/the Authority and shall borne all related taxes, duties and fees. The Contractor shall be responsible to comply with the conditions of obtained permits, permissions, licenses and/or approvals.

7.12 Performance Security

The Contractor shall not deliver any Performance Security.

7.13 Advance Payment

The Employer shall not pay any Advance Payment.

7.14 Subcontracting

The Contractor shall subcontract any part of the work or whole of the works described in the Contract by obtaining the Employer’s prior consent.

7.15 Delay Damages (Delay Penalty)

In case the Contractor is not able to complete the Work described in the Contract within the stated Time of Completion, the Employer shall be entitled to payment of Delay Damages by the Contractor in the amount of 0.1% of the Contract Price for each day of delay. Total amount of delay damage shall not exceed 5% of the Accepted Contract Price.

7.16 Adjustments for Changes in Cost

Unit prices in 7.17 Payment Schedule and the amounts payable to the Contractor shall not be adjusted for rises or falls in the cost of labor, Goods, machinery, equipment, other inputs and any other expense/cost relevant to the Works. No adjustment shall be applied to the Work, the Unit Price is deemed to have included amounts to cover the contingency of other rises and falls in costs valued on the basis of cost or current prices.

7.17 Payment Schedule

No.	Description	Unit	Quantity	Unit Price	Total Price
1.	Mobilization	sum	1		
2.	Hydrographic Survey	m ²	757,000		

Grand Total

1. Mobilization: Shall be paid upon successful completion of Mobilization.

2. Hydrographic Survey: Shall be paid upon completion of the Work against approved Invoice from the Employer.

8 SITE LAYOUT

