



*Port
Par-Excellence*

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CHENNAI PORT TRUST

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ADMINISTRATIVE OFFICE
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Rajaji Salai, Chennai - 600 001.
Website : www.chennaiport.gov.in

No.DW1/134/2019/M(D)

Date : 11.09.2019

To

National Technology Centre for Ports,
Waterways and Coasts (NTCPWC)
Indian Institute of Technology, Madras,
Chennai - 600 036.

Sir,

Sub: CONTRACT:- " To Engage NTCPWC for Carrying out Bathymetry Survey on all Basins, Turning Circle, Channels, Sand Trap, Port Limit (Open Sea to Shoreline) and Fishing Harbour Entrance area in Chennai Port on Nomination Basis for the period from July 2019 to June 2020" - Award of Contract - Letter of Intent (LOI)- Communication of - Reg.

Ref: 1) Your offer dated 03.06.2019.

Your offer for the work comprising of "Carrying out Bathymetry Survey on all Basins, Turning Circle, Channels, Sand Trap, Port Limit (Open Sea to Shoreline) and Fishing Harbour Entrance area in Chennai Port for the period from July 2019 to June 2020" at the cost of Rs.13,66,000/- (Rupees Thirteen Lakhs Sixty Six Thousands only) excluding GST has been accepted by the Trust. The assignment shall commence within 7 days from the date of issue of this letter of intent and the entire assignment shall be completed within a period of one year, ie., from July 2019 to June 2020.

2. The scope of work is as follows:

2.01 The quoted price is for Bathymetry survey in Chennai Port's Basins, Turing circle, channel, Sand Trap, Fishing Harbour Entrance Channel, Port limit in open sea etc., shall include submission of charts and quantity calculation with reference to the depth specified.

2.02 The Bathymetry survey to be carried out in survey grids of

- (i) Ambedkar Dock, Bharathi Dock, Jawahar Dock and
Fishing Harbour Entrance area -5x5 M

- (ii) Channel in zone I to IV – 10x5 M
 - (iii) Channel in zone V to VII – 20x5 M
 - iv) Sand trap and other areas-10x5 M
 - (v) Port limit 200x10 M
- 2.03 Bathymetry survey shall be performed by using Echo sounding equipment with motion reference unit and electronic positioning system (DGPS/GPS with an accuracy which ensures requirements of NHO/IHO standards for navigational purpose.
- 2.04 Horizontal control –Electronic positioning system (DGPS/GPS with beacon receiver) with a horizontal accuracy of less than one meter or as specified in IHO/NHO standards shall be used.
- 2.05 Vertical control – Echo sounder – single beam with dual frequency of 33 khz and 210/200 khz or standards frequency with an accuracy of 0.01m shall be used. All the time the same frequency shall be maintained till the completion of the particular survey. The contractor shall also use the multi beam echo sounder without claiming additional cost but with a prior permission of Chennai port.
- 2.06 Motion reference unit-MRU shall be used, the measured heave pitch and roll shall be corrected from the depth value.
- 2.07 Software–Hydrographic survey data acquisition and processing software for collection of survey data shall have interfacing all common navigational equipment such as Echo sounder, MRU, DGPS/GPS with Beacon receiver, etc shall be used like Hypack max, etc,
- 2.08 Calibration –Single beam –echo sounder shall be checked at least daily before and after by means of bar or plate suspended at known depth below the water surface or any other means prescribed by the equipment manufacturer, record of bar check shall be retained at the start of the echo sounder record, at the start of the survey the electronic positioning system /DGPS is to be calibrated to the specified accuracy with reference to the known point
- 2.09 Chart: - All survey charts to be produced by the contractor shall be reduced to chart datum and are to be presented to the Deputy Conservator or his representative in the approved form. The Bathymetry survey incorporating Port layout, all reference points, buoys, beacons, Navigational channel lines, berths, sand trap etc., as per requirement of NHO /IHO standards with Geographical coordinate and Projection coordinates in Transverse Mercator (UTM / WGS 84 / Everest) shall be submitted. Two copies of charts shall be made available with a soft copy in A0/A1 sheets in the port limit chart scale 1 in 10000 and all other areas 1 in 1000.
- 2.10 The scope of the work includes Quantity calculation with reference to specified depth for respective area, supply of charts in hard & soft copy, basic data, echo rolls if available, and mobilization of survey vessel, equipment, accessories, materials and manpower and completion of entire survey.
- 2.11 The Bathymetry survey to be carried out by the survey team, consists of experienced surveyors and helmsman in the field of hydrographic survey. At least one surveyor must have a certificate of in charge of surveys / Survey in recorder / Certificate of competence certificate issued by NHO / Hydrographic school or any competent authority and one person shall be qualified Engineer / Hydrographic in the field of Hydrographic Survey.
- 2.12 The survey vessel shall be of suitable size and stability for safe and proper for carrying out the survey work under the prevailing site and sea conditions. The vessel shall have experienced helmsman in survey work and good maneuverability even at low speed. The survey vessel shall have valid certificate for seaworthiness

and radio communication between all persons concerned in the surveys and port control.

3.0 General Notes

- 3.1 You are invited for carrying out Bathymetry survey at Chennai Port for a period of 01 year (one Year). Chennai Port is situated at Latitude 13° 06' N and Longitude 80° 18' E. The approach channel is of 7.0 km length with a width of 250m to 400m, having three Docks covered by Admiralty chart No.3004.
- 3.2 The survey shall be carried out during pre-monsoon period and post-monsoon period or as per the requirement of Chennai Port Trust.
- 3.3 Tidal data – The actual tide can be measured at Chennai Port tide gauge and this shall be corrected with reference to the chart datum while processing the raw data.
- 3.4 No mobilization and Demobilization charges will be paid. The contractor shall make his own arrangements to mobilize and demobilize the survey vessel and survey equipment's to or from Chennai Port site.
- 3.5 Port dues will not be charged for the survey vessel deployed for this contract. Communication equipments such as 'VHF' Walkie -Talkie set or any other mode of communication with license shall be made available continuously while carrying out Survey.
- 3.6 Chennai Port General layout showing Chennai Port Limit, Channel, Basin is enclosed for reference.
- 3.7 Any clarifications required shall be sought from the Chennai Port in writing to Deputy Conservator.

4.0 Price Schedule

Sl. No	Description of works	Each spell	Yearly	Qty in Km	Rate per running KM	Total Rs. P
1	Bathymetry survey on Port Basins	268	2	536	1000	5,36,000.00
2	Bathymetry survey on Entrance/approach channel	181	2	362	1000	3,62,000.00
3	Bathymetry survey on Sand trap areas	9	2	18	1000	18,000.00
4	Bathymetry survey on Port Limit area upto shore line	217	2	434	1000	4,34,000.00
5	Bathymetry survey on Fishing Harbour entrance area	8	2	16	1000	16,000.00
					Total	13,66,000.00

(Rupees Thirteen lakhs Sixty Six Thousands Only) Excluding GST.

5. You shall arrange to commence the work immediately and complete it within one year. The Trust will arrange for issue of Harbour entry permits for carrying out the survey work of the site for your technical personnel/survey team during the course of this assignment. For delay in submission of final survey report, Liquidated Damages will be levied at ½% per week of delay or part thereof, subject to a maximum of 5% of the order value.

