

# **Section –IV**

## **BILL OF QUANTITIES**

## **PREAMBLE TO RATE SCHEDULE**

### **4.1 GENERAL**

The contractor's attention is drawn to the conditions of contract, the specifications and the drawings all of which are to be read in conjunction with the Bill of Quantities hereinafter. Directions and descriptions of work and material given in the other parts of the contract Documents are not necessarily repeated in the Bill of Quantities.

The total cost of complying with all the provisions, conditions, obligations and liabilities etc. described in the contract and of carrying out the works as specified including, but not by way of limitation, all charges and the rates and prices inserted in the Bill of Quantities hereinafter unless expressly otherwise provided for in the contract. Consequently, the contractor shall have no claim for further or extra payment in respect of any work or rates and prices set against each item are to be for full and / or described in the specification which can reasonably be inferred therefrom and are to cover the cost of provision of all labour, materials, tools, tackles, plan all as per conditions stipulated elsewhere. The rates shall also include all contingent costs and charges for proper completion of the work, whether mentioned or not, including all taxes such as Income Tax, Building & other Construction workers welfare cess and general to all the contractor's obligations under the contract and all matters and things necessary for the proper completion and maintenance of the works. The quantities given in the Bill of Quantities are estimated. The basis of payment shall be the actual quantities of work ordered and carried out as measured jointly by the contractor and by the Engineer valued at the rates and prices specified in the Bill of Quantities, where acceptable and otherwise at such may fix within the terms of the contract. The quantities of work and materials stated in the Bill of Quantities shall not be considered as limiting of extending the amount of work to be done.

The contractor is deemed to be familiar with all site conditions at the Port Site, weather, all site investigation records, available means of access and the locality of any existing services and working restrictions due to testing site features or other contractor's works in order to execute the works. General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. The contractor is deemed to have referred to the relevant sections of the contract documentation and prices incorporated against each item in the Bill of Quantities. The method of measurement is described in the following preambles and / or is demonstrated in the measured items included in the Bill of Quantities.

Unless separate items are measured, rates and prices must include for all testing in accordance with the specification.

The following abbreviations have been used:

PS -Provisional Sum

LS -Lump Sum

M /m -metre

M<sup>2</sup>/ m<sup>2</sup> -square metre

M<sup>3</sup>/ m<sup>3</sup> -cubic metre

T/t /Te/ te/MT -tonne

wk -week

No. -Number

Rs. -Indian Rupee

## **4.2. METHOD OF MEASUREMENT & MODE OF MEASUREMENT**

### **4.2.1. General**

Unless stated or billed otherwise, quantities shall be measured in accordance with IS: 1200 and are net as they are finished shall include whatever allowance is considered by the contractor to be necessary for waste, working area, construction slopes, batters etc.

### **4.2.2. Units Rates prevail**

In case of any arithmetical errors in the Bill of Quantities, the quoted unit rates shall prevail. Arithmetical errors will be corrected by the employer in the manner set out in the Instructions to Tenderers.

The required area shall be worked out correct up to sq.mtr. and quantity shall be worked out up to 2 places of decimals of cubic meters of all items. The length & width shall be worked out correct upto 2 places of decimals of running meter for all the measurements. However levels shall be recorded in three decimals.

## **4.3. PAYMENT**

### **4.3.1. General**

Payment to the contractor shall be made on the recorded measurements and the contractor will have to submit bills in the prescribed form once in a month and payment will be made ordinarily once in a month. The Port shall pay 75% of the net amount of the bill submitted within 10 days from the date of receipt of the bill and the

balance within 30 days from the date of receipt of the bill. On completion of the work or on the prior termination of the contract final measurement will be taken and account adjusted accordingly.

4.3.2 The tenderers are advised that all payments related to this subject work would be made through ECS (Electronic Clearing Service). The tenderer would be required to provide particulars of their bank account along with their bid.

The payment will be made through ECS only.

The tenderers to submit

1. Name of the Bank, Branch and full postal Address
2. Account Number
3. MICR Number
4. Type of Account
5. IFSC code number
6. Copy of PAN Card
7. TIN Number
8. Income tax PAN
9. GST

#### **4.3.3 General**

4.3.3.1 The quantities given in the Bill of Quantities are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer-in charge and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.

4.3.3.2 The rates and prices bid in the priced Bill of Quantities except insofar as it is otherwise, provided under the Contract, include all constructional plant, labour, supervision, materials, all temporary works and false works, erection, maintenance, establishment and overhead charges, profit, foreign taxation and levies, taxes (other than GST ) general risks, liabilities and obligations set out or implied in the Contract and including remedy of any defects during the Defects Liability Period.

4.3.3.3 The rates and prices shall be quoted

4.3.3.4 The rate or price rounded off to the nearest Indian Rupee shall be entered against each item in the Bill of Quantities both in figures and words, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.

4.3.3.5 The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related itemsof work.

4.3.3.6 General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.

4.3.3.7 The method of measurement of completed work for payment shall be in accordance with the requirements as stated in the individual sections of the Technical Specifications.

#### **4.4The Financial Offer will include the Followings:**

The bidder(s) are deemed to have been taken into consideration all the tender conditions including various stipulations of MoEF &CC vide its order dated 20.11.2020. and cost of its compliance, while quoting the rates in the BOQ. In addition the rates entered in the BOQ is deemed to cover the following additional aspect;

4.4.1 Mobilizing of all equipment's including arranging all tools, equipment's and machineries required for carrying out the work specified in the schedule within the targeted date and as per description of the works stipulated in the tender.

4.4.2 Collection and analysis of data in the field, if so required by the Bidder.

4.4.3 Maintenance of all equipment's for the work during the entire period of the contract.

4.4.4 Accommodation at site or anywhere else nearby for the Bidder and his workmen.

4.4.5 Periodical hydrographic survey of the area, including providing latest sounding equipment's, preparations of charts, submission of bills of quantities as and when required and as desired by the EIC.

4.4.6 It is the responsibility of the contractor to comply with all rules and regulations in connection with the dredging contract including EC norms. The bidder is advised to take into account the environmental protection cost, to the extent applicable, while furnishing the rates in the BOQ. No additional claims in this regard shall be entertained

even at a later date.

4.4.7 Demobilization, dismantling, retrieving, carrying away from sites all tools, equipment's, machineries, temporary anchorage (if any), debris if any and accommodation etc. after completion of the work.

4.4.8 Suitable equipment's along with other required ancillaries should be arranged by the contractor. The contractors will carry out the necessary repairs, maintenance to the equipment brought by them at site at his own risk and cost. The board will not pay any charges for such repairs, replacement of parts, machineries, labors etc.

4.4.9 Dredging shall not be carried out during the fish breeding season as notified by the State Authorities.

4.4.10 As committed, Silt curtains shall be used to minimize spreading of silt plume during dredging operation. Turbidity should be monitored during the dredging using online monitoring system. No removal of silt curtain unless baseline values are achieved.

4.4.11 Dredging shall be carried out in the confined manner to reduce the impacts on marine environment.

4.4.12 The dredging schedule shall be so planned that the turbidity developed is dispersed soon enough to prevent any stress on the fish population.

4.4.13 While carrying out dredging, an independent monitoring shall be carried out through a Government Agency/Institute to assess the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.

## **BILL OF QUANTITIES**

**“CAPITAL DREDGING AT BERTH POCKET OF OIL JETTY NO. 8, MANEUVERING AREA AND KANDLA CREEK INNER (BUOY NO.15 A TO OIL JETTY NO.8) FOR FUTURE OPERATIONAL REQUIREMENT FROM OJ-08 TO OJ-11”**

<b>Sr. No.</b>	<b>DESCRIPTION</b>	<b>Estimated Quantity (In situ)</b>	<b>Unit</b>	<b>Rate (in Rs.)</b>	<b>Amount (in Rs.)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>1</b>	<p>Mobilization of all equipment machinery, crafts including all type of dredgers and ancillary crafts commensuration with the method statement to carry out all the works as per the scope of work within the time specified and demobilize all the equipment brought after completion of the respective works with the prior approval of the “Engineer-in-charge” including cost of all, labour, fuel, consumables, transportation etc. complete.</p> <p>NOTE:</p> <p>(i) The contractors along with their technical offer shall furnish the list of equipment, machineries, dredgers and other ancillary craft along with their tentative schedule for mobilization and demobilization of the equipment's, machinery, floating crafts including the Dredgers. Notwithstanding the fact as to whether the list contains all the equipment/ machinery/ crafts/ dredger or not. Without prejudice to the provisions under cl. 1.1.1.c of section 1, It is the responsibility of the contractor to mobilize additional equipment, machineries, crafts, dredgers, etc. without</p>	<b>LS</b>	<b>-</b>		

	<p>claiming any extra cost for proper completion of the work properwithin the specified time.</p> <p>(ii) The total mobilization and demobilization charges shall not be more than the limit prescribed in clause.3.26.</p> <p>(iii) 75% of the total lump sum rate quoted for the item shall be released only after mobilization of respective type of dredgers proposed to be deployed for the work in good working condition as per their work methodology statement and upon completion of at least 5% of the total dredging quantity as detailed in clause.3.26 (without correlating to mobilization of machinery or equipment) and balance 25% of the quoted rate shall be released only after demobilization of all the equipment/machinery/crafts/ dredgers and other ancillary crafts.</p> <p>(iv) The rate shall include all duties, taxes (excluding GST) and all other charges/ expenditure etc., complete in all respects.</p>				
<b>2</b>	<p>Dredging in berth pocket of OJ 8 from the existing levels to achieve a depth of 14.1m below CD by deploying suitable dredgers like Trailer Suction Hoper Dredger (TSHD)/ Cutter Suction dredger (CSD) / Back hoe(BHD) / grab dredger &amp; necessary ancillary equipment and disposing off the dredged material in the designated disposal area as shown in the drawings during the contract period including all costs and</p>	<b>61,000</b>	<b>Cum</b>		

	charges and also insurance and all other incidental expenditure arising out of or in connection with the contract etc. and conducting necessary joint quadruplicate pre , progressive and post hydrographic surveys etc.				
<b>3</b>	Dredging in the maneuvering area and Kandla Creek Inner (Buoy No. 15A to Oil Jetty No. 8) for future operational requirement from OJ-8 to OJ-11 as indicated in the drawing, from existing levels to achieve a depth of 10m below CD by suitable dredgers like Trailer Suction Hopper Dredger (TSHD)/Cutter Suction dredger (CSD) / Back hoe(BHD) / grab dredger & necessary ancillary equipment and disposing off the dredged material in the designated disposal area as shown in the drawings during the contract period including all costs and charges and also insurance and all other incidental expenditure arising out of or in connection with the contract etc. and conducting necessary joint quadruplicate pre , progressive and post hydrographic surveys etc.	<b>7,17,000</b>	<b>Cum</b>		
	<b>Note:</b> The quantity indicated in Sr. no. 2 & 3 is only indicative and may vary to suit the site condition subject to the limit prescribed elsewhere in the contract document. However, Payment shall be made on actual Insitu Quantity based on Joint Quadruplicate Pre & Post Hydrographic surveys.				
<b>4</b>	Environmental Monitoring Cost as per the details specified in the	<b>6</b>	<b>Months</b>		

	Environmental clearance/ Bid document. (refer Cl. 3.4.18, 4.4.13 & 6.23.5)				
<b>5</b>	<p>Salvaging of concrete lumps, Mixed Scrap such as rubber fenders, tyres, general debris, Iron scrap, Under-water objects from seabed in dredging including disposal of the same at designated dumping ground, which will be in distance for a lead of 2-5km from the berths, duly clean/ wash or as directed by Engineer in-charge. The rate quoted shall include the mob and demob of suitable plants, equipment and labour etc., required for carrying out the salvaging operation.</p> <p><b>Note:</b> The quantity mentioned is only tentative and may vary to any extent, as per site condition. Accordingly, the payment for individual salvaging operation shall be made on actual quantity salvaged.</p>				
	i. Concrete Lumps, etc.	<b>1</b>	<b>MT</b>		
	ii. Mixed Scrap such as rubber fenders, tyres, general debris	<b>1</b>	<b>MT</b>		
	iii. Iron Scraps	<b>1</b>	<b>MT</b>		
	iv. Any other Under-water objects weighing individually between 1MT and 2MT	<b>1</b>	<b>unit</b>		
<b>Total Amount in Rs. (excluding GST)</b>					
<p><b>Note:</b></p> <p>1) The quoted rate shall exclude the GST component. However, the actual GST amount paid by the contractor shall be reimbursed upon production of the paid receipt/ invoice.</p> <p>2) The contract period is 6 months.</p>					

3)The Contractor may raise monthly bills for the completed insitu quantity based on the quoted rates and payment will be released normally once in a month upon due certification by the Engineer -in-Charge.

4) The submission of Price Bid / quoted amount / indication of any financial amount along with technical bid will be considered rejected. Prices will be quoted only on (n)procure website.

Date:

Place:

**Signature of the Contractor**