



HOOGHLY COCHIN SHIPYARD LIMITED, HOWRAH

(A Government of India Enterprise under Ministry of Port, Shipping & Waterways.) Nazirgunge, Unit, Howrah

e-TENDER ENQUIRY FORM (TEF) Two-Bid System

Turnkey basis job for Design, Supply and Erection of Pre-Engineered steel structure-Warehouse for Materia Store and Land development work at Hooghly CSL, Howrah.



TENDER NOTICE

Sealed competitive tenders are invited from experienced Contractors for the scope of work given below. Tenders are to reach the undersigned on or before the date and time mentioned below. Please refer scope of supply/Technical specification, General Terms and conditions and special terms attached.

terms attached.			
Tender No. & date	HCSL/CIVIL/TEN/2025/126 dated 24.12.2025		
Scope of Supply / Work	Turnkey basis job for Design, Supply and Erection of Pre- Engineered steel structure-Warehouse for Materia Store and land development work at Hooghly CSL, Howrah (Detailed specification is enclosed separately)		
Type of Tender	Two Bid		
Last date & time of receipt of tender	14.01.2026 at 15:00 Hrs		
Date & time of opening of tender	14.01.2026 at 15:30 Hrs		
Tender Cost	Nil		
EMD	Rs. 1,00,000/-		
Completion of Work	04 months from the date of issue of Work order or site handing over whichever is later.		
9	Name : Avik Majumder Designation : Sr. Manager - IR & HR Email : avik.majumder@hooghlycsl.com Phone No : +91- 7003395446		
Officer-in -Charge			
	Name : Subham Manna		
	Designation : Sr. Project Officer (Civil)		
	Email : subham.manna@hooghlycsl.com		
	Phone No : +91- 7003595364		

Tender to be submitted by E-mail only. Tender reference should be clearly indicated on the subject of the Mail.

Tenders should be submitted **Two parts i.e. Part-I (Techno-Commercial Bid) and Part-II (Price Bid) in separate pdf format (Price bid must be Password Protected) indicating the tender number, due date of the tender and subject as in-line with the scope of work in the Mail addressed to:**

avik.majumder@hooghlycsl.com subham.manna@hooghlycsl.com

The tender documents can be downloaded from HCSL/ CSL website http://hooghlycsl.com/www.cochinshipyard.in. The tender documents are available on above mentioned link. All corrigenda, addenda, amendments and clarifications to this tender will be hosted in the website www.cochinshipyard.in or http://www.eprocure.gov.in. Bidders shall keep themselves updated with all such developments till the last date and time of submission of tender else offer will be rejected.

Tender administration: Tender procedure/administration/evaluation including correspondences and awarding of contract will be done by M/s. Hooghly Cochin Shipyard Limited, Howrah, West Bengal.

The bidder must visit the HCSL site before submission of the bid. The site visit slip must be submitted along with the tender document containing HCSL OIC signature is mandatory else offer will be rejected.

For any queries, contact the below personnel:



Name: Subham Manna Designation: Sr. Project Officer (Civil) Email: <u>subham.manna@hooghlycsl.com</u> Phone No: +91- 7003595364



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1. BRIEF SCOPE OF WORK:

- 1.1. Hooghly CSL intends to Turnkey basis job for Design, Supply and Erection of Pre-Engineered steel structure-Warehouse for Material Store at Hooghly CSL, Howrah.
- 1.2. Bidder shall refer detailed Scope of Work and Technical Specifications which is attached separately at Annexure 2.

2. INSTRUCTIONS TO THE BIDDERS:

- 2.1. This is an e-tender and bids have to be submitted online ONLY. It is the sole responsibility of the bidders to submit their bids online in time. Bidders are, therefore, advised to commence the bidding process WELL IN ADVANCE (preferably 3-4 days prior to tender closing date) and not wait for last minute submission of their bids. Hooghly CSL reserves the right for grant of extension or otherwise without assigning any reason. Bidder's failure to complete submission of their online bids in time on account of reasons such as SLOW SPEED OF SERVER, TECHNICAL PROBLEMS etc. shall not be entertained and EXTENSION OF SUBMISSION TIME shall not be granted on this account.
- 2.2. Before submission of the tender, the bidder must visit the site, examine the General Conditions of Contract, the Specifications (including any drawings and other specifications referred to therein), the schedules and the Bill of Quantities. In case of any ambiguity or discrepancy between any of these documents or between figured and measured dimensions, the bidder should immediately refer the matter to Hooghly CSL.
- 2.3. Hooghly CSL will not be responsible for any costs or expenses incurred by the Bidder in connection with the preparation and submission of his bid or for any other expenses incurred in connection with such bidding regardless of the conduct or outcome of the tendering process including cancellation of this tender process.

3. GUIDANCE FOR E-TENDERING:

- 3.1. No offer in sealed envelope will be accepted against e-tendering.
- 3.2. ONLINE SUBMISSION OF OFFER IN TWO-BID SYSTEM:
- 3.3. Offer must be submitted in Two parts i.e. Part-I (Techno-Commercial Bid) and Part-II (Price Bid)
- 3.3.1. Techno-Commercial (Part-I) Bid: Bidders shall submit/upload scanned copy of the following duly filled in, signed & stamped with company seal in online Part (I) bid:
 - a. Duly filled, signed and sealed tender document and unpriced commercial Bid
- b. Scanned copy of GST Registration Certificate & Permanent Account Number (PAN).
- c. Power of attorney or authorization with seal of the company in favor of persons signing the bid.
- d. EMD
- e. CA Audited & certified Average Annual financial turnover during the last 3 years ending 31st March, 2025. Bidders shall upload scanned copies of Audit certified Balance Sheets & Profit/Loss Accounts for the last 3 years. Draft Audited Reports are not acceptable.
- f. Copy of un-priced price bid (attached), Annexure-14 & 14A.
- g. Power of Attorney, in case of a Limited or Private Limited Company or a corporation.
- h. CHECKLIST OF SUBMITTALS attached along with online Technical Bid as per format at Enclosure-13.
- i. Signed copy of Corrigendum if issued by Hooghly CSL

Notes:

i) Hooghly CSL has a right to verify / cross verification of authenticity of the scanned documents

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with respect to original submitted against this tender.

- The bidder is requested to ensure that all the documents asked for are submitted and are clear, legible & duly signed (i.e. self-attested), as it would save considerable time without necessitating the need for furnishing of the documents again by them. The bidder is also requested not to submit unnecessary documents not asked for.
- iii) Bidders are requested to ensure that only relevant documents complete in all respect as indicated in the tender should be attached with their offer. The evaluation of the offers will be carried out and bidders will be qualified based on the documents received along with their offer.

3.3.2. Price Bid (Part-II):

- a. Price Bid must be password protected.
- b. Price Bid as appearing in the format is to be filled by the bidder.
- c. The Bill of Quantities (BOQ) are as appearing at Enclosure -14 & 14A.
- d. Bidders are required to quote rate for the items listed in BOQ, in the price bid (Part II)
- e. The Lowest Bidder (L1) shall be evaluated based on the overall cost quoted by the bidder.
- f. If a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.

g. Note:

- 1. If, in the price structure quoted for the required goods, there is discrepancy between the unit price and the total price (which is obtained by multiplying the unit price by the quantity), the unit prices shall prevail and the total price corrected accordingly.
- 2. If there is an error in a total corresponding to the addition of subtraction of sub-totals, the sub-totals shall prevail and the total shall be corrected.
- 3. If there is a discrepancy between words and figures, the amount in words shall prevail.

PRE-OUALIFICATION CRITERIA:

4.1. Technical PQC

4.1.1. Particular experience-

Bidder's experience of having successfully completed similar works during last 5 years should be either of the following:

4.1.1.1. Three similar* completed works each costing not less than Rs. 61,00,000/-

OR

4.1.1.2. Two similar* completed works each costing not less than Rs. 76,20,000/-

4.1.1.3. One similar* completed work costing not less than Rs. 1,22,00,000/-

*Similar Work: "Similar work shall mean "Design, Supply and Erection of Pre-Engineered steel sheds/Warehouse/PEB Structures/civil & mechanical works"

4.1.2 Documentary evidence in support of similar completed works viz., copies of Work Order(s)/Contract Agreement(s) indicating contract amount, Project/Work value, Scope of Work etc. & Work Completion Certificate(s) issued by the Client(s) indicating proper reference of the Work Order/Contract Agreement & date of Completion, duly signed & stamped with company seal shall be scanned and uploaded online.

Commercial PQC 4.2.

4.2.1 Submission of Valid Bidder's Shop & Establishment Registration Certificate or

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Certification of Incorporation from Registrar of Companies or registration certificate from registrar of firms.

4.2.2 Financial Capabilities

a. Bidder's average Audited Annual financial turnover during last 3 years ending 31st March 2025 should be at least Rs. 46 Lakhs as per the annual report or audited balance sheet and profit and loss account of the relevant period, duly authenticated by a Charted Accountant/ Cost Accountant.

Clarification of Bids/Shortfall documents: 4.3.

- 4.3.1 During evaluation and comparison of bids, Hooghly CSL may, at its discretion, ask the bidder for clarifications on the bid. The request for clarification shall be given in mail, asking the bidder to respond by a specified date & time.
- 4.3.2 If the bidder does not comply or respond by the said date, his offer will be liable to be rejected.
- 4.3.3 Post-bid clarification at the initiative of the bidder shall not be entertained.
- 4.4. Start-ups shall not be given any relaxation in prior turnover and prior experience.
- Bids from Joint Venture / Consortium are not acceptable. 4.5.

Note: Hooghly CSL reserves the right to demand hard copy(s) of any of the above documents along with originals to verify / cause verification of authenticity of the same, whenever felt necessary.

5. SITE VISIT:

5.1. The site for the work is located at Hooghly Cochin Shipyard Limited

Satyen Bose Road, P.O. Danesh Sk. Lane,

Nazirgunge, Howrah-711109,

West Bengal, India

- 5.2. It is considered necessary that the Bidder(s) shall visit the site and get clear idea about the work involved, before quoting. The Bidder(s) are therefore advised to visit the site and study all the particulars of the site and the nature of the work.
- 5.3. Bidder(s), if required, may contact on telephone no. 7003595364 for any doubts /clarifications / site visits.

6. EARNEST MONEY DEPOSIT (EMD) / BID BOND:

- 6.1. Bidders shall furnish EMD of 1.00 Lakhs (Rupees One Lakhs Only), against this tender.
- The EMD can be remitted in the form of Online Bank Transfer (Mention docket no.)/Demand Draft (DD) / Banker's Cheque / Fixed Deposit Receipt (FDR)/ Bank Guarantee drawn in favor of "Hooghly Cochin Shipyard Limited" payable at Kolkata and shall be valid for a period of 6 (Six) months from the due date of opening of Techno-commercial Bids from any Nationalized/ Scheduled Bank or paid online through e-gateway of -

HOOGHLY COCHIN SHIPYARD LIMITED STATE BANK OF INDIA **BRANCH: COCHIN SHIPYARD** ACCOUNT NO: 37354232301 IFSC CODE: SBIN0003229



- 6.3. EMD furnished by all contractors except the lowest tenderer will be released after issuing work order and submission of SD and its acceptance by the contractor to whom the work is awarded. Except L2, all other bidders EMD could be released earlier.
- 6.4. EMD of the successful tenderer will be refunded after remittance of the security deposit and acceptance of the order. EMD of L2 can be released after the issuance of work order to L1.
- 6.5. The Earnest Money Deposit (EMD) may be forfeited if:
 - a. The bidder withdraws, amends, impairs, or derogates from the tender or agreed conditions in any respect within the period of validity of their offer.
 - b. Non-acceptance of work order.
 - c. Bidder after accepting the work order fails to provide services.
- 6.6. Micro and Small Enterprises (MSEs) as defined in MSE Procurement Policy issued by Department of Micro, Small and Medium Enterprises (MSME) or are registered with the Central Purchase Organization or the concerned Ministry or Department are exempted from submission of EMD.

TENDERS RECEIVED WITHOUT EMD or EMD furnished not as per Hooghly CSL format in case of BG will be summarily rejected (other than those who are exempted from payment of EMD).

- 6.7. The Scanned Copy of the Bank Guarantee towards EMD shall be uploaded in the Techno-commercial bid (Part-I).
- 6.8. Bidder shall send the original of the Bank Guarantee towards Earnest Money Deposit (EMD) by Registered Post/Speed Post/Courier/In Person so as to reach the designated addressee within 07 Working Days from the closing date of the tender during office working hours i.e. up to 1730 hrs. Timely submission of the original EMD instrument is the responsibility of the bidders and no reasons / excuses in this regard will be entertained by Hooghly CSL.
- 6.9. If the original of EMD instrument is NOT RECEIVED within the stipulated period of 07 Days from the closing date of the tender, the Bids / Offers will be liable for rejection.
- 6.10. Refund of EMD in all the cases shall be without interest as stated below:
 - i. EMD will be refunded to the techno-commercially rejected bidders within 15 days from the date of price bid opening and remaining bidders within 30 days of determination of L1 or placement of Order on Successful bidder whichever is earlier.
 - ii. In the event of cancellation of tender, the EMD will be refunded / returned to all the bidders
- iii. EMD of successful bidders may be converted into performance security or refunded on receipt of performance security B.G.
- iv. If the validity of the offer of the firm has expired and if bidder is not willing to extend the validity of offer, the EMD of such bidders to be refunded.

7. VALIDITY PERIOD:

7.1 Bids / Offers shall remain valid for a period of not less than **120 Days** after the deadline date of submission.

8. OPENING OF BIDS:

- 8.1. Part-I (Techno-commercial Bid): Part-I bid will be opened on the due tender opening date from 15:30 Hrs onwards at Administrative Building, Hooghly CSL, Howrah.
- 8.2. Part-II (Price Bid): After completion of Techno-Commercial scrutiny, intimation for opening of Page 8 of 55



Part-II bid will be communicated only to Techno-Commercially accepted bidders. Such intimation may be given at a short notice by E-mail or even by telephone, only to the Techno-Commercially qualified bidder(s).

9. EVALUATION OF BIDS:

- 9.1. The Bidders should meet the criteria as stipulated in "Prequalification criteria" and submit all documents as stipulated in Clause "Techno-Commercial (Part-I) Bid"
- 9.2. The Price bid of only Techno-Commercially qualified bidders shall be opened.
- L1 to be calculated based on the TOTAL CONTRACT AMOUNT (EXCLUDING GST) as mentioned in PRICE BID FORMAT.
- 9.4. The committee after evaluation of these financial bids shall give its final recommendations on the successful bidder.

10. BID REJECTION CRITERIA:

- 10.1. The Following conditions/ deviations are non-negotiable and therefore any bid falling under these conditions/ deviations shall be **summarily rejected**. Bidders to note that they shall not be provided any opportunity to rectify these conditions/ deviations post bid opening:
 - 10.1.1. Bids received after tender closing date and time.
 - 10.1.2. Bids received other than email mentioned above.
 - 10.1.3. Bids received without EMD (other than those who are exempted from payment of EMD or those submitting valid EMD Exemption document).
- 10.2. Non-compliance/non-acceptance to any of the terms and conditions of the tender shall render the bid liable for rejection;
 - Equal time and opportunity for submission of deficient techno-commercial documents and clarification shall be given to the bidders.

10.3. DISQUALIFICATION:

Even if a bidder meets the tender terms and conditions including prequalification criteria, he shall be subject to disqualification if he is found to have:

(a) Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or;

11. DELIVERY PERIOD/COMPLETION SCHEDULE:

- 11.1. The Completion period for entire work shall be **04 (FOUR) MONTHS.**
- 11.2. The successful bidder shall submit detailed bar chart/work schedule including activity, milestones, deployment of resources/manpower for execution of the work within 21 days after placement of the Purchase Order.
- 11.3. The completion of work may entail working in monsoon period/ rainy season also. The contractor shall take such events into consideration while quoting for the work. The contractor must maintain sufficient labour force for the timely completion of work as per the prescribed schedule. No extra rate will be admissible for work in monsoon/rainy season. During monsoon and other period, it shall be the responsibility of the contractor to keep the work site free from water at his own cost and ensure safety of their workmen and materials.

12. MOBILIZATION:

12.1 The Contractor shall deploy his manpower, material & machinery within 21 (Twenty-One) days from Placement of P.O.

13. DELAYS IN COMMENCEMENT

13.1. The Contractor shall not be entitled to any compensation and/or damages for any loss suffered by him on account of delays in commencing whatever the cause for such delays may be.

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- Similarly, the Contractor shall not be entitled to claim any amount from Client for delays in completion of work.
- 13.2. If the contractor abandons the contract or fails to commence the work in time or suspend the work for long duration (10 days) or delay the progress of the works without valid reasons acceptable to HCSL or labour dispute with their workers or poor safety records or poor quality of work or workmanship etc. is noticed, then HCSL will terminate the contract and arrange the work at the risk and cost of the terminated contractor. In such case, security deposit along with Performance Guarantee submitted by the contractor shall be forfeited forthwith.
- 13.3. The Contractor should inspect the source of materials, their quality, quantity and availability. All materials must strictly comply with the relevant specifications.
- 13.4. The Contractor must co-operate and co-ordinate with other Contractors involved in other works at the site.

14. PRICING:

13.1 All materials shall be procured by the contractor as specified in the Technical Specification/Bill of Quantities, at his own cost and the price quoted shall be deemed to be inclusive of all applicable taxes, transportation, storage, royalties, handling, etc. The contractor should produce challans / Invoices of the materials and its quantity brought to the site as and when required by Hooghly CSL.

15. ALL INCLUSIVE RATES

The Contractor's rate shall be fixed & firm and shall include the cost of transportation of material to the site, taxes, duties, labour cess, GST etc. The rates quoted by the Contractor shall be firm throughout the contract period and there shall be no upward revision of the rates quoted by the Contractor for any reasons whatsoever. Basic rate should be all inclusive and GST shall be added separately. Any new Taxes, levies, duties imposed after signing the Contract shall be reimbursed by the Client on production of documentary evidence. However, any increase in the duties & taxes during construction because of delays in the completion of work attributed to the Contractor shall be to the Contractor's account.

16. TERMS OF PAYMENT:

- 16.1. Hooghly CSL payment terms shall be as under:
- a. Payment can be made on the clear RABs without corrections submitted by the contractor. HCSL shall carry out an initial scrutiny to check the eligibility of the RABs. HCSL has the right to reject the bill if found ineligible. Certified amount will be paid only after quality of work is certified & after scrutiny and crosschecking of the bill by HCSL. The contractor shall submit running account bills in two copies along with joint measurements. The contractor shall inform HCSL well in advance for recording the joint measurement. All statutory taxes, as per the rules prevailing in force at the time of payment of bills will be deducted while making payment or when crediting the amount to the account. After completion of all the works, the contractor has to clear all the debris and make the area neat and tidy at the site. The final bill shall be paid only after the certification regarding quality of work and overall certification by HCSL after obtaining all applicable approvals of HCSL. The final bill shall be paid within two months from the date of submission of claim (bill) by the contractor or completion of all the items of work or date of acceptance of the bill by both parties whichever is later. Contractor shall indicate details like PAN, GST details etc. required for processing payment. Payments will be made through NEFT/RTGS/Cheque mode and recessary details shall be furnished by the contractor. HCSL reserves the right for the deduction of taxes and duties as applicable from

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the bill or invoice.

- b. The invoices must be submitted along with the joint measurements taken at site duly approved by the designated representatives of the Technical Services department.
- c. The quantities given in the schedule of work are only approximate and payment will be made as per actual measured quantities of work executed at site.
- d. All the payments are made, after deducting there from the amounts already paid, the security deposit, income tax, workers welfare fund and other amounts as may be deductible or recoverable in terms of the contract.
- e. The amount admissible for interim bills shall be normally paid within a month from the date of receipt of the bill by the Engineer-in-charge after such verification as is considered necessarily.
- f. Before submission of the final bill, the Contractor should sign and submit the following:
- i. A "No Claim Certificate" indicating that he has no claim against the company under the contract except as included in the final bill.
- ii. Taking over certificate issued by Engineer In charge, Hooghly CSL.
- 16.2. **Payment Schedule**: The payment shall be as per accepted price for each stage on submission of work done certificate by Structural Designer/Consultant.

Sr. No.	Activity for Consideration of Payment	Percentage Payment
01	On Submission of Detailed design, proof checking &	10% of Accepted value
	approval from third party, design calculations, issue of	
	GFC drawings, method statement for execution	
02	Fabrication and Supply of Structural Steel material	20% of Accepted value
03	Execution at Hooghly CSL site: Fabrication of all the	40% of Accepted value
	Structures incl. trusses and Erection at site	
04	Fixing of Roofing / Cladding Sheets, Rolling	10% of Accepted value
	Shutters	
05	Completion of all the balance Civil works incl. touch-	20% of Accepted value
	up painting etc., issue of Stability Certificate and as	
	built drawings.	

17. PRICE VARIATION: Not Applicable for this tender

18. LIQUIDATED DAMAGES:

- 18.1. Liquidated Damages will be levied at the rate of 0.5% of the value of contract per week of delay involved subject to a maximum of 10% of the value of the executed contract value.
- 18.2. The owner shall be at liberty to adjust or deduct the said amount of liquidated damages (not the way of penalty) from any amount due to the contractor including Security Deposit.
- 18.3. When the delay is not a full week or in multiples of a week and involves a fraction of a week, the LD payable for that fraction shall be proportional to the number of days involved.

19. DEFECT LIABILITY PERIOD (DLP):

19.1. The contractor has to guarantee the material and workmanship for a minimum period of TWO



YEARS (24 months) from the date of commissioning and acceptance of the same by Hooghly CSL against defective workmanship/inferior quality of materials used. During this period any part/Items found defective shall be repaired/replaced by the Contractor free of cost any trouble or defect originating with the workmanship of any facilities installed arises at any time up to 24 months from the date when the system is taken over after commissioning, and the CONTRACTOR is notified thereof, the CONTRACTOR shall at his own expense and as quickly as possible make such alteration / repairs and replacements as may be necessary to comply with the above guarantees and shall reimburse any costs and expenses incurred by HCSL in connection with such trouble or defect. If the contractor fails to take action as above as HCSL shall direct, HCSL shall be free to take corrective/alternative action at the contractor's cost and risk within a reasonable time.

20. CONTRACT PERFORMANCE GUARANTEE

20.1. The successful Bidder should furnish 5% of contract value as Performance Security within 14 days from the date of issue of Work Order. Performance guarantee should be furnished in the form of an irrevocable Bank Guarantee (BG) enforceable and en cashable at Kolkata, drawn from any scheduled bank operating in India. The BG furnished towards the Performance Security shall be valid for a period until a date 30 days from the day of expiry of the defect liability period stipulated as per the terms of the contract. Performance security shall not accrue any interest. Performance Security will be released / refunded to the Contractor after 30 days from the date of completion of Defect Liability / warranty period of the work. Bank guarantee should be submitted only in the format enclosed at Annexure-8.

21. **SECURITY DEPOSITE:**

Security Deposit (SD) shall be at 5% of the contract value and shall be recovered from the running 21.1. account bills. The total amount thus deposited towards SD will be retained as security for the due and proper fulfilment of the contract and will not carry any interest. Such deposit shall be forfeited on failure to perform or non-fulfilment by the Contractor of the terms and conditions of the contract. The contractor has to make good all defects during the defect liability period at his own cost. The Security Deposit deposited shall be released on satisfactory completion of 02 years of defect liability period. After 1 year, half SD may be released as per approval by Engineer-incharge.

22. EXECUTION OF WORK AND MEASUREMENT:

- 22.1. All works shall be carried out and measured as per specifications and standard Engineering practice and mode of measurements, conforming to the relevant IS code. The Contactor shall ensure that skilled workmen in their respective trades are employed. He shall also employ qualified Engineer(s) / Supervisor(s) experienced in similar type of work, as required, for execution of work efficiently.
- Request for permission for working on Saturday / Sunday / holidays if required, should be submitted 3 working days prior to the date of holiday, to Personnel department and Security through Technical Services Department.
- The work is to be carried out in the area where Hooghly CSL's normal activities are in 22.3. progress. The Contractor has to plan his work in such a way as not to disturb the normal activities ELEST-00

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of Hooghly CSL. The contractor shall not be paid for any compensation for idle period if generated due to any reason whatsoever. Reasonable extension in time, however, may be considered on application in writing along with supporting Documents.

- 22.4. All the works under or in course of execution or executed in pursuance of the contract shall at all times be open to inspection and supervision of the Hooghly CSL and the Contractor at all times during the usual working hours, offer assistance for the inspection of work. Orders given to the Contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.
- 22.5. The Contractor shall submit supporting documents such as Invoice of Materials, Delivery Challan(s), Release note from the nominated Inspection Agency, Test reports / Certificates, Packing Lists, Invoice, Performance Guarantee, Storage / Preservation / Installation / Commissioning / Maintenance Procedures & other Technical documentation in requisite sets as relevant along with the invoice for the purpose of certification by Hooghly CSL.
- 22.6. Contractor shall be responsible for procuring all the materials required for construction. Contractor shall arrange for testing of materials from approved laboratory and submission of test certificates as per specification in accordance with relevant IS Codes. The cost towards testing is deemed to be included in the quoted rates.
- 22.7. All construction materials procured by the contractor should be of approved quality and free from defects. Hooghly CSL has got all the Rights to Test and Reject any material in part or in full at any point of time. Hooghly CSL reserves the right to take random samples from materials delivered by the Contractor at site and send the same for testing at Govt. approved laboratory(s). Cost towards the same shall be borne by the Contractor.
- 22.8. Testing of samples shall be made in the presence of Hooghly CSL representatives. Materials shall be delivered to Hooghly CSL site only after clearance from Hooghly CSL along with test certificates. Hooghly CSL reserves the right to take random samples from materials delivered by the Contractor at site and send the same for testing at Govt. approved laboratory(s). Cost towards the same shall be borne by the Contractor.
- 22.9. Contractor shall arrange for equipment's / instruments with valid calibration certificate as required at site. The cost towards the same is deemed to be included in the quoted rates.

22.10. Availability of Construction material

During the tenure of the Contract due to the various reasons, there may be scarcity of availability of construction material in Kolkata region & this type of crises may be for short term or long term. In such circumstances, Contractor shall arrange to procure the Material available from other state/region of India with no additional cost to Hooghly CSL. The cost of the same is deemed to be included in Bidder's quote.

22.11. Special Condition of Contract.

1. A minimum set of Supervisor Staff/Tech. team required at site for supervision, Safety and quality compliance.



23. CONTACTOR'S SCOPE:

- 22.1. <u>Power:</u> Main power supply given from Hooghly CSL shipyard, the contractor shall make his own arrangement for electric connection, electrical fittings, cables/wires, welding transformers, etc. at his own cost.
- 22.2. <u>Water:</u> Main water supply given from Hooghly CSL shipyard, the contractor shall make his own arrangement for water connecting lines, storage etc. at his own cost.
- 22.3. **Equipment/Machinery:** The contractor shall make his own arrangement for all equipment, machinery, tools and tackles etc.
- 22.4. <u>Construction Material</u>: All the materials required for works procured by the Contractor shall be of repute make and as approved by Hooghly CSL. The rate shall be inclusive of transportation, storage, security, handling etc.
- 22.5. <u>Consumables</u>: All the consumables required for the works including temporary works, allied/ associated job etc. shall be procured by the Contractor including transportation, storage, security, handling etc.
- 22.6. The Contractor shall also note that under no circumstances Contractor shall be paid for idle manpower.

24. **DEBRIS REMOVAL/HOUSEKEEPING:**

- 23.1. Debris generated during execution of work shall be promptly disposed of outside Hooghly CSL. The site will be maintained clean at all times and the Contractor is expected to budget for the same. Also, during dignitary visits, temporary works materials, debris etc. shall be shifted suitably without any additional cost to Hooghly CSL.
- 23.2. The site will be maintained neat and clean at all times and the Contractor is expected to budget for the same. Hooghly CSL has Designated Bins separately for Scrap Steel, Wood Scrap & Rubbish. Contractor shall segregate unusable scrap steel, wood, rubbish, if any, and deposit the same in the nearest respective bin.

25. SAFETY AND TRAINING:

- 25.1. All the workers, Engineers of the contractor shall have Safety PPE's (Personnel Protective Equipment's) like Safety Helmets, Safety Shoes, Safety Belts, Hand Gloves, and Goggles etc. The contractor shall also provide Safety net and Safety Belts for height work.
- 25.2. All workers on site shall adhere to the best safety practices applicable. All personal, process & material safety procedures shall be planned & implemented on site. Training & regular inspection shall ensure that safety standards are met.
- 25.3. First Aid kit & First aid training shall be given to all key members of the Site team.
- 25.4. All workers, supervisor's contractor shall optimum training regarding all aspects of site management prior to commencement of work

26. CHANGES:

- 26.1 Hooghly CSL reserves the right to issue change orders which provide for changes in the scope of work required under WORK ORDER, and for equitable adjustment in the price hereunder.
- 26.2 Any amendment to WORK ORDER shall be made in writing by Hooghly CSL and all other terms and conditions of WORK ORDER shall remain unchanged.
- 26.3 Ruling Percentage" shall mean the percentage by which the amount of the works actually awarded is higher or lower than the corresponding departmental estimated amount of the works. Ruling percentage shall be defined based on the departmental estimated amount of works and amount of the works actually awarded.
- 26.4 The quantities given in the Bill of quantities are indicative only. Variation is permitted in quantity



of each individual item. The rates quoted shall be firm for such variation up to the limit of 25% in respect of individual items and up to 10% of the Contract Value. In case the variation results in the total Contract Value exceeding the prescribed percentages, the revision of rates, if any, shall be applicable only for that portion of contract carried out in excess of the permissible percentages. The rate payable shall be determined as given below:

- a. Rates and prices of relevant item in the Delhi Schedule of Rates 2023 plus cost index applicable for Kolkata/Howrah, West Bengal plus/ minus Ruling Percentage.
- b. Market rates of material and labour, hire charges of plant and machinery used plus 15% for overheads and profits of Contractor. Contractor has to furnish site observed data jointly certified by contractor, employer for computing local market rates along with supporting documents such as tax invoice of materials procured, labour deployment log book, work order/purchase order showing hire charges of plant and machinery, work order showing labour rates etc. to employer.
 Whichever is lower, but not less than the rate in the Bill of Quantities.
- 26.5 No claims shall be entertained from the contractor for any downward variation. Contractor's concern is for negative variation as their cost of mobilization, set-up charges etc. does not get recouped in case of reduction in quantities.

27. INDEMNITY CLAUSE:

The firm shall indemnify Hooghly CSL and keep harmless against any or all claims, liabilities, damages, losses, costs, charges, expenses, proceedings and actions of any nature whatsoever made or instituted against HCSL directly or indirectly by reason of:

- i) Any wrongful, incorrect, dishonest, criminal, fraudulent or negligent work, misfeasance, disregard of duties by personnel of the firm; and/or
- ii) Any theft, robbery, fraud or wrongful act or omission by personnel of the firm.

28. RECOVERY OF DUES FROM THE CONTRACTOR:

Hooghly CSL shall have recourse to Contractor for any costs, claims, demands, proceedings, damages and expenses whatsoever arising out of or in connection with any failure of Contractor to perform any of his responsibilities / obligations under the terms of the order. Any amount due from Contractor as per the order shall be deducted from money due or becoming due to Contractor or may be recovered as provided for in the contract.

29. PERMITS AND CERTIFICATES:

27.1 CONTRACTOR shall procure, at his expense, all necessary permits, third party approval certificates, and licenses required by virtue of all applicable laws, regulations, ordinances and other rules in force at the place where any of the work is to be performed, and CONTRACTOR further shall hold Hooghly CSL harmless from liability or penalty which might be imposed by reason of any asserted or established violation of such laws, regulations, ordinance or other rules.

Tender documents, Terms and conditions and Drawings should be signed and sealed in all pages by the contractor and accompanied along with the tender.

I / We hereby declare that I/we have read and understood the above instructions and the terms and conditions mentioned above are binding on me/us.

Signature and Seal of the Contractor (s)

For Hooghly C



Annexure-1

GENERAL CONDITIONS OF CONTRACT

- 1. The bidders are expected to familiarize himself, labour situation, wages and benefits applicable to labours, working hours, prior to quoting the rates. The submission of a bid by bidder implies that he has made himself aware of all the above situations and conditions. Any subsequent claim on this account will not be entertained.
- 2. All applicable taxes, duties, transportation and insurance etc. except GST should be included in the rate quoted, unless specified otherwise. Hooghly CSL reserves the right for the deduction of taxes and duties as applicable from the bill or invoice.
- 3. Tender documents issued are not transferable. Tender documents issued/downloaded shall be submitted wholly without altering any part.
- **4.** The bidder shall not have been debarred / black listed by Hooghly CSL or by any of the Public Sector Undertaking or Government department etc. Bidders shall produce a self-declaration in this regard as attached.
- 5. Bidders are instructed to carefully go through the tender documents and shall agree to Hooghly CSL terms and conditions, specifications, scope of work etc and quote their offer accordingly. Bidders shall produce a self-declaration in this regard as per the format enclosed with the tender documents. All the pages of tender documents shall be signed and duly sealed by the bidder as a token of the acceptance of conditions stated therein.
- **6.** Tender opening shall be carried out at the designated date, time and location as specified in the Notice Inviting Tender. It may please be noted that, if any of the dates indicated in the tender notice is declared a public holiday, the dates shall be extended to the next working day.
- 7. The price bids will be evaluated based on the lowest offer on the total amount such as basic price, GST and all other applicable taxes obtained from eligible and qualified valid bids for opening the price bids. (on lowest total landed cost to Hooghly CSL)
- **8.** Hooghly CSL reserves all the rights to reject any or all tenders without assigning any reason. Acceptance of a bid will rest with the competent authority, who does not bound himself to accept the lowest tender and reserves the right to reject any or all of the tenders received, without assigning any reason for the same.
- **9.** Throughout the bidding documents, the terms "bid" and "tender" and their derivatives ("bidder / tenderer", "bid /tender", "bidding / tendering", etc.) are synonymous, and day means calendar day. Singular also means plural.
- 10. Hooghly CSL has the right to award work, part or in full to a single party or multiple parties as deemed fit. Also, Hooghly CSL shall have the right to issue work order & supply order separately.
- **11.** During the evaluation of tender, Hooghly CSL may seek clarifications from the bidders. Clarification if any shall be given in writing/e-mail. Hooghly CSL decision will be final and binding on the bidder.
- 12. Bringing in new conditions after the tender opening will not be allowed. Under no circumstances, will an enhancement of quoted rate be allowed, once the offer is accepted and an order is placed. Withdrawal of the quotation after it is accepted or failure to make the supply/execution within the stipulated delivery/completion period will entail cancellation of the order and forfeiture of EMD/Performance security, if any/ and or risk purchase.
- 13. HCSL shall without prejudice to any right or remedy is at full liberty to forfeit the said EMD/Cost of Tender absolutely if the tenderer withdraws his tender before the validity period or makes any modifications in the terms and conditions of the tender which are not acceptable to HCSL. After the issue of work order by HCSL, failing /refusing to execute the agreement/ start the work, the tenderer shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the contractors calculated and the willful breach of the contract, HCSL shall



- have full right to take suitable action against the firm together with forfeiture of Earnest Money Deposit.
- Security deposit/Performance guarantee will be released only after attending all the defects pointed out to the contractor during the defect liability period/guarantee/warrantee period. Any work which are not attended/replaced during the defect liability period within a reasonable time given by Officer in charge /Engineer, the work will be carried out at the risk and cost of the contractor by HCSL.
- 15. The site will be available for work during office hours (08:30 Hrs to 17:15 Hrs.) only. However, if the Contractor wishes to carry out the work beyond normal working hours or on holidays, he should get specific approval from the Officer-in-Charge.
- The work shall be inspected by the Officer -in Charge /Engineer, his authorized representative deputed by the Officer -in - Charge. Officer-in - Charge / Engineer will have full liberty to impose penalties for the violation of any of the agreement clauses.
- General conditions on work part:
- 17.1. Hooghly Cochin Shipyard Limited reserves the right to make minor alterations, additions or substitutions to the existing specifications/scope of work, if found necessary during the progress of work and the contractor is bound to carry out the work without any additional cost, as per such altered specifications.
- 17.2. The completion of work may entail working in monsoon period/ rainy season also. The contractor shall take such events into consideration while quoting for the work. The contractor must maintain sufficient labour force for the timely completion of work as per the prescribed schedule. No extra rate will be admissible for work in monsoon/rainy season. During monsoon and other period, it shall be the responsibility of the contractor to keep the work site free from water at his own cost and ensure safety of their workmen and materials.
- 17.3. All labour, skilled or unskilled shall be provided by the contractor. Settling any dispute with the labour, subcontractor, labour union shall be the sole responsibility of the contractor. Workers engaged for works should have sufficient knowledge and experience in the respective fields.
- The contractor should take insurance for the men and materials till the handing over of the entire system to Yard. The contractor is bound to meet the expenses or defence of any action of legal proceedings that may be brought by any person for injury sustained owning to neglect of safety precaution and to pay damages and costs which may be awarded in consequence as per rules in force. It is the responsibility of the contractor to ensure that workmen engaged in the work should wear safety appliances like helmet, safety shoes, safety belts etc. and should strictly comply with Yard Safety Rules and Regulations in vogue. For obtaining entry permission of workmen into the company premises, the contractor has to furnish the identity proof of those persons to be engaged [Passport/Electron Identity card etc. If required, police clearance certificate shall also be submitted. They should carry / display the pass issued by Yard authorities during the entire span while in Yard. The contractor has to abide by all relevant Labour Regulations and enactments as applicable to the contractor and his/their workmen and as amended from time to time without causing or claiming any responsibility or liability thereof to the company.
- 17.5. The workmen are strictly banned from use of any kind of Narcotics drugs / Alcohol /smoking etc. inside Yard and any illegal activity by the work men should be reported to the Officer-incharge without delay and the contractor shall remove such persons from Yard premises.
- The Contractor should furnish their Registration code, ESI/EPF (if applicable) /PAN/GST numbers issued by competent authorities if any. The supporting documents for the same may have to be submitted to Hooghly CSL in the event of requirement. Hooghly CSL reserves the right for the deduction of ESI/PF from the bill or invoice, if required.

17.7. TAX ELEMENTS





- a. The tax rate of the Goods and Services would be as per the Government of India published GST rate schedule for goods & services. The rates have been mapped with HSN& SAC in the rate notification issued by the government. The rate schedule should be referred to identify the applicable rate.
- b. GST ID should be mentioned.
- c. The invoices should be as per the provisions of GST law. The invoices should mandatorily contain the HSN code/SAC and GSTIN number along with other particulars. The GST charged (CGST&SGST or IGST) should be separately indicated in the invoice.
- d. Tax inclusive invoices will not be accepted.
- e. All correction/rectification in the invoices should be done through Debit note/ Credit note
 only.
- **17.8.** The entire work should be carried out to the satisfaction of the Officer-in-charge/Engineer of the work. Decisions of the Officer-in-charge/Engineer will be final and binding to the contractor.
- **17.9.** The workmanship shall be as per industrial standard in every respect both for the equipment supplied and for the installation carried out. The work should confirm to relevant Indian Standard Specification / other statutory rules wherever necessary/ applicable.
- **17.10.** Arrangement of all necessary accessories shall be carried out by contractor for successful completion of work even though not specifically mentioned in the tender/ order. All tools, tackles, accessories and other materials brought into Shipyard for the work shall comply with statutory requirements and shall be declared.
- **17.11.** Necessary storage space will be provided by Yard as per the prevailing rules subject to the availability of space. If not, contractor has to make necessary arrangements outside Yard premises at his own cost and risk.
- **17.12.** All statutory requirements are to be followed by the contractor. Packing material used if any should be eco-friendly.
- **17.13.** The contractor has to abide by the Contract Labour Act 1970 and rules there under and applicable State Contract Labour Rules and the Yard safety rules and regulations. It is the responsibility of the contractor to follow all safety rules and regulations in force, during the period of contract in Yard, and any violation of the same during the course of work will be at the risk and cost of the contractor and will attract penal action.
- **17.14.** Necessary "Work in progress" boards shall be provided by the contractor at locations shown by the Officer –in Charge/Engineer.
- **17.15.** The contractor shall make arrangements for collection, preparing, forwarding and testing of samples (if required) at his cost as directed by the Officer –in Charge /Engineer. The charges for testing to be borne by the Contractor.
- **17.16.** Electrical connections issued to the Agency will be exclusively for their own use and any power sharing with other agencies shall be totally under the risk and cost of the agency to which power supply is allotted.
- **18.** Bidders shall follow the Security instructions and HSE guidelines as enclosed with the Tender documents.
- 19. FORCE MAJEURE CONDITION: Should failure in performance of the contract or part there of arise from war insurrection, restrain imposed by Government, Act of Legislature of other statutory Authority or illegal strike (event like local strike/ hartal etc. in the yard, state or national), riot, legal lock out, flood, bad weather, fire, explosion, pandemic, epidemic, Act of God of any inevitable or unforeseen beyond human capacity which may be construed as reasonable ground for an extension of time. HCSL may allow such additional time as is mutually agreed, to be justified by the circumstances of the case. The occurrence/ cessation of force majeure situation is to be informed with documentary evidence within 15 days from the date of occurrence or cessation.



- **20. RISK PURCHASE: -** If the contractor fails to complete the work, in time as per the terms in work order, HCSL shall have the following rights.
 - a) To terminate the contract within 15 days of notice.
 - b) To initiate alternative arrangements at the risk and cost of the contractor.
 - c) HCSL reserves the right to terminate the work order at short notice in case the firm's performance is found not satisfactory with regard to the progress of work, quality, time factor, labour dispute with their workers, poor safety record and other violation of any contract conditions. No claim whatsoever will be entertained in this regard from the firm.
 - 21. JURISDICTION: Any dispute(s) or differences arising out of or in connection with the Contract shall, to the extent possible, be settled amicably between HCSL and the contractor under mediation. Arbitration under provisions of Indian Arbitration and Conciliation Act shall not be applicable for this contract. Any disputes or differences arising under, out of, or in connection with the contract shall be subject to the exclusive jurisdiction of courts at Kolkata, West Bengal, India

General Conditions, technical specifications, Drawings etc. and all tender documents of HCSL is legally binding on the tenderer.

22. USE OF APPROVED MAKES

List of approved makes for use in permanent works is mentioned in the tender. It will be deemed that the contractor has priced the respective items on the basis of the approved makes.

Where a particular brand or make is specified in Bill of Quantities or Technical specification, such brand or make of material shall only be used in the works.

Whenever equivalent is specified in the list of approved makes, permission for use of equivalent make shall be subject to contractor submitting proof of non-availability by way of valid regret letters from the makes listed along with the comparison table of properties of proposed make w.r.t specified make. Also, contractor shall submit sample of equivalent material along with test certificates and other documentary evidences to the Engineer- in –charge for approval. Decision of Engineer-in-charge on approving equivalent makes shall be final and binding on the contractor.

23. SITE HANDING OVER

The site will be handed over in full. However, if this is not possible due to reasons that cannot be anticipated now, site shall be handed over in multiple phases based on the exigency of work. If there is any delay in work due to delay in handing over of site by HCSL which is not attributable to the contractor, proportionate extra time will be granted if found necessary by the Engineer-in-charge without any additional cost implication and the decision of Engineer-in-charge shall be final.

24. MOBILIZATION ADVANCE

Mobilization advance shall not be applicable for this contract

25. PRICE ADJUSTMENT

Price Adjustment shall not be applicable for this contract

26. SAFETY AND SECURITY PROVISIONS

The Site of Work is a protected area. Contractor shall strictly abide by the rules and regulations of HCSL regarding entry and exit of vehicles, materials, equipment's & contractor's workmen. All the Contractors and subcontractors shall comply with the measures related to the Quality, Health, and Safety & Environment (QHSE) policy of HCSL. It is the responsibility of the contractor to follow all safety rules and regulations in force, during the currency of contract in HCSL, and any violation of the same during the course of work will be at the risk and cost of the contractor and will attract penal action. Upon any violation of Safety rules by the contractor, safety department will impose penalty of Rs 5,000/- per violation. Action for debarring the contractor also will be taken in case of repeated violations. Any accident caused due to safety violation and any damage to the Employer property suitable penalty will be imposed by HCSL including

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termination of contract, if required.

27. PROCUREMENT OF MATERIALS

The Contractor shall arrange from the very beginning adequate supply of materials, manpower, stock control items, spare parts etc. so as to ensure that delays or hold-ups do not occur in the commencement and execution of the works. Advance planning for procurement shall be ensured and buffer stock for critical construction items such as reinforcement steel, structural

steel, cement, admixtures, aggregates etc. sufficient to carry out at least two weeks of work shall be ensured by the contractor for smooth progress of work.

All the materials to be used in work shall be subjected to the approval of Engineer-in-charge. The contractor shall apply sufficiently in advance with the samples of materials including the supporting test results from the government/NABL accredited laboratory and other documentary evidence from the manufacturer wherever applicable indicating the types of materials and their respective sources. The Engineer-in-charge also reserves the right to conduct additional tests at government laboratories or NABL accredited laboratory at his discretion. The cost of all such tests shall be borne by the contractor. The delivery of material at the site shall be carried out only after the approval of quality, grading and source of materials by Engineer-in-charge. The quality of all material once approved shall be maintained throughout the period of construction and periodic tests shall be carried out to ensure that it is maintained. The guarantees/warranty certificates for all major bought out items, fittings /fixtures are to be handed over to HCSL prior to use in permanent works.

28. SITE RECORDS TO BE MAINTAINED BY CONTRACTOR

- Site records –RFI (Request for inspection), Engineer-in-charge approved formats for pour card, post pour, checklist for fabrication and erection, and inspection records for other works, BBS, consumption statements, Hindrance register etc.
- Quality related documents-Material testing reports (Proforma D), plant and machinery permits and calibration certificates, procurement and consumption statements of the applicable items whatever applicable, NCR etc.

Statutory documents- Workmen attendance register/wage register, EPF/ESIC remittance details, key personnel attendance statement etc.

29. Following declaration signed by the contractor.

"I/WE HAVE INSPECTED THE SITE AND GONE THROUGH THE TENDER TERMS AND CONDITIONS IN FULL AND UNDERSTAND AND ACCEPT THE SAME AND HEREBY TRULY CONFIRM AND DECLARE THAT THE RATES QUOTED IN THE PRICE BID ARE INCLUSIVE OF ALL TAXES, ALL CESS AND DUTIES BUT EXCLUDING GOODS AND SERVICES TAX. I / WE ALSO CONFIRM THAT COVER B (PRICE BID) DO NOT CONTAIN ANY CONDITIONS"

"I/WE HAVE NOT MADE ANY PAYMENT OR ILLEGAL GRATIFICATION TO ANY PERSON/AUTHORITY CONNECTED WITH THE BID PROCESS SO AS TO INFLUENCE THE BID PROCESS AND HAVE NOT COMMITTED ANY OFFENCE UNDER THE PC ACT IN CONNECTION WITH THE BID."

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Signature and Seal of the Contractor (s)

For Hooghly CSL



Annexure-2

TECHNICAL SPECIFICATION

<u>Scope of Work- Design, Supply and Erection of Pre-Engineered Steel Shed for Material Store at Hooghly CSL.</u>

Warehouse - Requirements: -

- Size-Length- 27.00 m, Width-22.00m, Height-6.00m
- Two Rolling shutter shall be openable from front to allow movement.

Scope of Work-:

- 1) Construction of RCC footings as per the standard design, to cast with M25 grade of controlled Cement Concrete over a layer of Plain Cement Concrete (100mm Thick) M 10 Grade after earthwork in excavation. The foundation should be designed to capable the load of structure with two 3 T Gantry Crain & live loads & half portion can bear the load of mezzanine floor.
- 2) Build Flooring of Vacuum Dewatering Flooring with M 25 grade of concrete 200mm thick over a layer of Plain Cement Concrete M10 Grade 100mm thick after filling trenches with available excavated earth, anti-termite, levelling the ground and watering and consolidation.
- 3) Proving & Anchoring the rod into the RCC slab, Grouting the rod
- 4) Providing & Fixing of Base Plate for fixing structural member
- 5) Providing & Fixing of Structural Steel / Tubular member like ISMB/ISMC, Tie Beams & Crossing
- 6) Fixing of Structural Truss / Tubular Truss
- 7) Providing & fixing 2 nos Rolling shutter of size (4m * 5m) for materials, vehicle movement.
- 8) Providing & fixing Structural Door for man movement
- 9) Supply & Painting with Epoxy Paint to Structural Steel Members
- 10) Providing & fixing insulating Roofing Sheets
- 11) Providing & fixing Cladding Sheets
- 12) Providing & fixing Ridge
- 13) Providing & fixing Gutter along with accessories
- 14) Providing & Fixing rainwater down take pipe with proper drainage arrangement.
- 15) Providing & Fixing wind driven turbo ventilator on roof.
- 16) Construction of Rigid Pavement & land development in front of warehouse.
- 17) Construction of drainage work.
- Appointment of Licensed Structural Designer/Consultant for design of all the Structural Members for Shed, proof checking & approval from third party like IIT/IIEST/JU/NIT, submission of design calculations, submit the method of statement for execution, Issue of GFC drawings, supervision for Steel Shed work & land development work, issue of stability certificate.







1. GENERAL

1.1. Materials

All materials required to complete the works shall be procured by the contractor including steel and cement unless specified. All materials shall be of Indian origin of the best quality of their respective kinds as specified and shall conform strictly to the stipulations laid down by the latest Indian Standards. Standards issued elsewhere may be used only if approved by the Engineer-In-Charge and for those materials only for which appropriate Indian Standard does not exist.

1.2. Sampling and Testing

The Contractor shall submit adequate number of samples of materials to the Engineer-In-Charge for approval giving all relevant information like source of supply, availability, etc. The approved samples shall be deposited with the Engineer-In-Charge whenever so instructed.

The Engineer-In-Charge shall order such tests and analysis of all materials before leaving the manufacturer's premises or the source of supply and/or when brought on site as considers necessary and the Contractor shall bear the cost of all sampling and testing which is in consonance with the Indian Standards.

If tests on materials lead to rejection of the particular consignment, notwithstanding the results of the tests at the manufacturer's works or elsewhere or of test certificates or of any approval given earlier, such materials shall be removed forthwith from the site by him at his own cost and replaced by other proper consignment. All charges in connection with of the new materials shall be borne by the Contractor.

Samples required for approval and testing must be supplied well in time to allow for testing and approval, due allowance being made for the fact that if the first samples are rejected, further samples may be required. Delay to the Works arising from the late submission of samples will not be acceptable as a reason for delay in the completion of the Works.

1.3. Storage of Materials

Generally stacking and storage of construction materials at site shall be as per recommendations in IS: 4082. All materials required to be incorporated in the Works shall be stored in racks in bins, under cover etc. as appropriate and as amplified in the succeeding clauses to prevent deterioration or damage from any cause whatsoever to the satisfaction of the Engineer-In-Charge.

1.4. Contractor's Responsibility

The Contractor shall be responsible for keeping the material in sound and acceptable condition from the time of consignment of any material is received at site and till its consumptions. Any material not approved for use shall be removed from the site at Contractor's cost.

1.5. Workmanship

In all cases the work shall be carried out in accordance with the latest Indian Standard Specifications and the best Engineering practice. In the absence of such specifications, work shall be executed in accordance with any other relevant standards issued elsewhere as approved by the Engineer-In-Charge or as per the instructions and directions of the Engineer-In-Charge.

1.6. Constructional Plant (s)

The Contractor shall be responsible for the supply, use and maintenance of all Constructional Plant and Equipment so as to ensure smooth and efficient working of the job at his own cost. The Engineer-In-Charge shall have access to the Plant at all times.

1.7. Workmen and Staff

The Contractor shall ensure that they employs only capable and experienced labour force, foremen, other tradesmen and supervisory staff on the job capable of handling the types of work assigned to them in a workmanlike and efficient manner to the satisfaction of the Engineer-In-Charge. They shall also ensure that his Sub-contractors or nominated Sub-contractors also employ all workmen and supervisory staff capable of delivering work of a high standard.

For all concrete work, a Quality Control Engineer shall be available on Site at all times when concreting



operations are in progress. Operators for mixers, mechanical vibrators and personnel in-charge of placing of concrete shall be fully trained and experienced for their type of work.

1.8. Method of Measurement

Mode of measurement shall be in accordance with the relevant parts of IS: 1200 "Method of Measurement of Building and Civil Works" only, unless otherwise specified in various item wise specifications describes herein below.

1.9. Rates and Prices

Unless otherwise mentioned, the rates and prices set against items in the bill of quantities or which can be reasonably inferred there from complete as a functioning entity shall include all costs and expenses which may be required in and for the construction of the work such as-material to be incorporated in the works (permanent/ temporary), labour required for all operations, temporary works, tools and equipments as required, all operations required for the completion and or maintenance of the relevant items as per specifications, all leads and lifts unless otherwise specifically mentioned in the items, including all general risks, liabilities and obligations set forth or implied in the documents on which the tender is based.

2. List of Bureau of Indian Standard Codes (BIS)

Following is the consolidated list of various Indian Standards relevant to the civil works appearing in this specification.

GENERAL

S. No	IS Code No	Particulars	
1	IS:4082-1977	1. Carriage of materials.	
		Recommendation of stacking and storage of	
		construction materials at sites.	
		(1st revision) (Reaffirmed-1990)	
2	IS:1200 (Part 22)-	Method of Measurement of Building & Civil	
	1988	Engineering Works-Part 22-Materials	
3	IS:17293-1974	Safety code for working with construction machinery	
4	IS:7969-1975	Safety code for handling & storage of building materials	
5	IS:8989-1978	Safety code for erection of concrete framed structures	
6	IS: 4014 (part 2)	Code of practice for steel tubular scaffolding - Part 2 -	
	1967	Safety regulations for scaffolding	
7	IS:13416 (Part 1)	Preventive measures against hazards at work places -	
	1992	Part 1 – Falling material hazard prevention.	
8	IS: 13416 (Part	Preventive measures against hazards at work	
	2)1982	places recommendations — Fall prevention.	
9	IS: 13416 (part 3)	Preventive measures against hazards at work places	
	1994	- Recommendations - Part 3 - Disposal of debris	
		(MULBA)	
10	IS: 13416 (Part 5)	Preventive measures against hazards at work places	
	1994		
		Recommendations – Part 5 – Fire protection	

STEEL WORK

S. No	IS Code No	Particulars	
1	800-1984	Code of practice for use of structural steel in general in steel construction (2 nd revision) (Amendments 2) (Reaffirmed 1991)	
2	806-1968	Code of practice for use of steel tubes in general building construction (1st Revision) (Amendment 1) (Reaffirmed 1991)	
3	812-1978	Glossary of terms relating to welding and cutting of metals (Reaffirmed 1991)	
4	813-1986	Scheme of symbols for welding (revised) (Reaffirmed 1991)	



	5	816-1969	Code of practice for use of metal arc welding general construction in mild steel (1st revision) (Amendments 2) (Reaffirmed 1992)
	6	818-1968	Code of practice for safety and healthy requirements in electric and gas welding and cutting operations (1st revision) (Reaffirmed 1991)
	7	822-1970	Code of procedure for inspection of welds (Reaffirmed 1991)
2	8	1200-1993 (Part VIII)	Method of measurements of building and civil engineering works steel work and iron works (4th revision)

FINISHING

S. No	IS Code No	Particulars
1.	104-1979	Specification for ready mixed paint, brushing, zinc chrome, priming (Reaffirmed 1993) (2 nd Revision)
2.	109-1968	Ready mixed paint, brushing, priming plaster to Indian Standard colour No.361.631 white and off white (Reaffirmed 1993) (1st Revision)

NOTE: INCASE OF ANY VARIANCE OF TECHNICAL SPECIFICATIONS WITH THE LATEST BIS CODES, RELEVANT LATEST BIS CODES SHALL BE APPLICABLE.







3. PRE-ENGINEERED BUILDING:

General

A. Structural Members

- i) Supply of Primary (Built-up) sections which are fabricated from hot rolled steel plates conforming to ASTM A 572M Grade 50 Type 2(or equivalent) with a minimum yield strength of 345 MPa. Flanges are welded to the web by a continuous fillet weld deposited by an automatic submerged arc welding process. The Built-up frame shall have shot blasted with one coat of primer paint applied as per standards.
- ii) Supply of Hot rolled sections are mill produced according to ASTM A36 M with minimum yield strength of 345Mpa (50 ksi).
- iii) Supply of Galvanized secondary members are cold-formed from steel coils conforming to ASTM A 653M (or equivalent), with zinc coating to Z275 designation (275 g/m2) having minimum yield strength of 450 MPa

B. Roofing panel:

Supply of double-lock standing seam system, of nominal effective cover width with two major corrugations, as per manufacturer's specification. This panel should be supplied in single piece of any length by moving the roll former to the site. The feed material is manufactured from 0.60 mm Base Metal thickness (BMT), min. 345 MPa yield strength coated with hot dip metallic Aluminum/Zinc alloy coatin//g, GALVALUME AZ150 as 150 gms/sq.mt total on both sides of Aluminium (55%) & Zinc (45 %), confirms to ASTM 792 or AS 1397. The paint finish thickness shall have a total coating thickness of nominal 25 μm, comprising of nominal 20 μm on exterior face and over nominal 5 μm epoxy primer coat on exterior surfaces of approved colour shade by concern authority. The interior face will not have paint. The steel manufacturers test certificate for the chemical and mechanical properties of steel must be submitted for approval by the concerned authority prior to installation. Specially designed roof clips shall be used to hold double-lock standing seam panels to the supporting structure member. The clip shall be design to move freely in both directions to take care of thermal expansion and contraction. The panel end lap shall be joined by mean of a two piece clamped connection consisting of a bottom reinforcing plate and top panel strap. Manufacturers recommended specially designed ridge capping, flashing; trims, gutter and downpipe shall be used for fixing double-lock standing seam system which shall be approved by concern authority. Fastener shall be used for fixing double-lock standing seam system as per manufacturer's recommendation. The measurement shall be based on finished / covered surface area.

C. Wall Panels:

i) Panels are roll formed from nominal 26 Guage / 24 Guage as Total Coated Thickness with minimum yield strength of 550 MPa, coated with an aluminum /zinc alloy (i.e. GALVALUME), AZ150 (min 150 gm/m2 total on both side), conforms to USA standards, prepainted with quality paint coat as per AS/NZS 2728 Class 3. The paint finish thickness shall have a total coating thickness of nominal 35 μ m, comprising of nominal 20 μ m on exterior face and nominal 5 μ m reverse coat on interior face over nominal 5 μ m epoxy primer coat on both surfaces of approved colour shade by concern authority. The steel manufacturer's test certificate for the chemical and mechanical properties of steel must be submitted for approval by the concerned authority prior to installation.

D. Profile dimensions:

Trapezoidal type rib as per manufacturer's specification to be provided. The end rib shall be designed for anti-capillary action, to avoid any seepage of water through the lateral overlap.



E. Trims & Gutters:

- i) **Wall flashing** and trims (gable, corner, framed opening, accessories, etc.) are manufactured from same color, finish and thickness as wall panels.
- ii) **Roof flashing** and trims (parapet flashing, transition trims, expansion joint trims and ridge caps) are manufactured from same color, finish and thickness as roof panels.
- iii) **Eave gutters** are cold-formed from the same material as wall panels and downspouts will be of PVC.

3.1.PVC RAINWATER PIPE:

MATERIALS:

The low density PVC pipes of specified diameter with 6 Kg /. Sq. Cm. working pressure shall conform to I.S. 3076 - 1968. The fittings required shall be of best quality.

3.1.2 WORKMANSHIP:

- a. The P.V.C. pipes of specified diameter shall be fixed as directed. Due to thermal expansion of rigid P.V.C Pipes, due allowance shall be made in pipe lines for any change in length of pipe line which may occur during installation or when pipe line is in service. P.V.C pipe should be undertaken after precautions are observed for their protection against dirt, sun rays and mechanical damage. P.V.C pipes shall be supported at an interval of 2000 mm.
- b. Closer support spacings shall be provided, if recommended by the manufacturer.
- c. The guide line indicated by the manufacturer regarding handling, transportation, storing, laying and jointing of pipes shall be kept in view during execution.

3.1.3 Jointing the pipes:

- 3.1.3.1 The pipes end shall be accurately cut. The ends of the pipes and fitting should be absolutely free from dirt and dust. The outside surface of the pipes and the inside of the fittings shall then be roughened with emery paper, and then solvent cement shall be applied to the matching surface and pushed home and joined. Since solvent cement is aggressive to P.V.C care must be taken to avoid applying excessive cement to the inside of pipe sockets as any surplus cement cannot be wiped off after jointing. Empty solvent cement tins, brushes, rags of paper should be gathered, not left scattered about.
- 3.1.3.2 If any manufacturer recommends its own methods of jointing, the same shall be adopted after necessary approval from the Engineer –in-charge.

3.2.Accessories:

- 3.2.1 **Anchor bolts** are manufactured from rods conforming to ASTM A 36M (or equivalent) with a minimum yield strength of 250 MPa and an ultimate strength of 400 MPa.
- 3.2.2 **Bracing rods**, used in sidewalls of buildings supporting cranes are solid plain round steel bars conforming to ASTM A36 M (or equivalent) with minimum yield strength of 250 MPa.
- 3.2.3 **Flange braces** used to stabilize the inner flanges of main frame columns and rafters of cold formed steel angles conforming to ASTM A 653M (or equivalent) with a minimum yield strength of 345 MPa
- 3.2.4 **Base / gable angles** shall be supplied as required by the design requirements, cold-formed from galvanized steel conforming to ASTM A 653M (or equivalent), with zinc coating to having a minimum yield strength of 345MPA.
- 3.2.5 **Roof Fixing Clip:** Specially designed roof clips shall be used to hold double-lock standing seam system to the supporting structure member. The clip shall be designed to move freely in both directions to take care of thermal expansion and contraction.
- 3.2.6 Panel Endlap: The panel lap shall be joined by means of a back-up plate provide at the lap. All other special accessories should also be factory fabricated including flashings, ridge cap, gutter,

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- downpipe or any other covering shall be as per manufacturer's recommendations.
- 3.2.7 **Sealant:** Special grade of silicon sealant non-hardening, neutral cure type of approved make and grade shall be applied at all side laps and endlaps (with flowable mastick) as per manufacturer's recommendation and approval by engineer-in-charge.
- 3.2.8 **Metal closures at eave & ridge:** The inside closure at eave and outside closure at ridge shall be made of steel only (of same material as roof sheet).
- 3.2.9 **Bead mastic:** is an extruded elastomeric butyl rubber based sealant supplied in rolls on silicon release paper conforming to Federal Specification TT-C-1796 A Type II Class B (or equivalent).
- 3.2.10 **Flowable mastic** (caulking sealant) is a neutral cure silicone rubber sealant that is chemically inert and non-corrosive. It is UV resistant and suitable for exterior applications against weathering and rainwater. When cured it is non-toxic and will accommodate high thermal and shrinkage changes in structural movement joints.
- 3.2.11 Foam closures should be to match the panel profile for wall panels wherever necessary.
- 3.2.12 **Fasteners:** The panel clip shall be fastened to structural members with self drilling fastener as per manufacturer's recommendation. The size of the fastener shall be calculated as per the design load and approved by concern authority.

3.3 Erection and Fixing:

- 3.3.1 The installation shall be done in accordance to the standard practices as specified by the manufacturer and as approved by the concerned authority. All sheets and accessories must be stored and finally erected without any damage.
- 3.3.2 The Contractor shall also submit methodology for fixing and also a maintenance manual for routine maintenance.
- 3.3.3 Special flashing, ridge capping and trims shall be fixed as per manufacturer's recommendation. The shape and girths shall be as per design requirement and shall be approved by the concern authority.
- 3.3.4 Panel clips shall be positioned by means of an alignment strap used for drilling holes in the secondary structural members.

3.4 Measurement:

3.4.1 No separate payment will be made for the laps of sheet and accessories, bolts, nuts, washers, adjustable bolts and supports for gutters and other fixtures. These are assumed to be included in the quoted rates.







Notes:

Specification language for Skylight Translucent sheeting-

DESCRIPTION	POLYCARBONATE
GENERAL PROPERTIES Material	Polycarbonate
	r orycar bornate
Conforming to standard	
Thickness	2.0 mm
Light Transmission (Max)	95%
Heat Transmission	
UV Protection	99.90%
Chemical Resistance	Moderate
Diffused Light	No
Cracking Resistance	Poor
Appropriate Length	< 6m
Max. Span at 1 kPa	1.0 m
Silicon Sealant	Special Silicon
	containing
	Polycarbonate
PHYSICAL PROPERTIES	
Tensile Strength	65 MPa
Impact Strength	20 Joules
Shear Strength	41 MPa
Modulus of Elasticity	2400 MPa
Compressive Strength	
Flexural Strength	87 MPa
Specific Gravity	1.2
Thermal Conductivity	0.21 watt / m °C
Water Absorption	0.36% in 24 hrs / 23 °C
Fire Spread	Self-extinguishing
Recommended Service	40 ° to + 110 °C
	40 LOT 110 C
Temperature Range	- DOCTEMBED ATUDE VARIATION CHEET I ENCIN 4 METE
	°C TEMPERATURE VARIATION, SHEET LENGTH 6 METE
Thermal Expansion	16.2 mm
Thermal Co-efficient	6.75 x 10-5 cm / cm / °C

Note: Poly Carbonate sheets shall be seamed along with the roofing sheet.

3.5 PAINTING:

3.6 General conditions

- 3.6.1 Standards, codes and regulations
- 3.6.2 The painting work is to be executed according to the valid standards, codes and regulations on their latest revision.
- 3.6.3 The following standards, codes and regulations shall be taken into consideration:
 - · IS standards

3.7 General:

3.7.1 The supplier has to deliver all the materials and work tools which are needed for performing the job. For instance, painting, cleaning solvents, dilution solvents, brushes, special equipment, scaffolding, ladders, rigging material, collective protection material.

3.7.2 The specifications shall be respected and it is only the cheft consultant who can issue a



waiver.

3.7.3 The specifications, recommendations, HSE recommendations mentioned on the technical Specifications of the painting supplier shall be respected. Special attention is drawn on the HSE aspects when working in confined objects, such as the interior of the tanks. A prevention plan according to this issue is set up before start of the work. Painting jobs are considered as high risk jobs and a safety and environment prevention plan has to be set up by the Contractor before start of the work.

3.8 Storage of the coatings and solvents:

3.8.1 The coatings and solvents shall be stored in a ventilated container or storage room and in an ambient temperature which is never lower than 1°C.

3.9 Method of appliance of the layers:

- 3.9.1 On the surfaces shall the layer been applied one after each other and between the appliance of each layer shall a drying time been respected according to the technical specification of the coating supplier. Each layer shall have a different colour. The minimum thickness as stated in the technical specifications of the supplier and in this specification shall be respected.
- 3.9.2 All surfaces which have a skin temperature of > = 60 °C shall not be painted.

3.10 Atmospheric conditions:

- 3.10.1 Painting is not admitted when:
- 3.10.2 Ambient temperature is lower than 5°C.
- 3.10.3 If the circumstances are too humid (rain, fog, snow, heavy showers) or/and if the relative humidity exceeds 85 %.

3.11 General precautions:

- 3.11.1 Bolts, nuts, stud bolts, screws shall not been painted and temporarily protected for accidental paint, unless otherwise asked by the Client. Tag plates, name plates shall not been painted and temporarily protected for accidental paint.
- 3.11.2 The Contractor collects all removed dust, rust, spilled solvents and paints and any leftovers of paint and solvents and removes them from the site of the Contractor. All these materials are destroyed or deposit conform the local regulations.
- 3.11.3 The Contractor shall avoid any spill of paint and / or solvent on parts or surfaces belonging to the site of the client. To avoid spills on these parts, the Contractor shall cover during the execution of the painting work (when needed) the parts.

3.12 Painting systems:

For new surfaces: Painting to PEB structure with Epoxy paint

In the Workshop:		
1 st Layer		Thickness of the layer after drying (DFT): 50 microns
2 nd Layer		Thickness of the layer after drying (DFT): 100 microns
3 rd Layer	Epoxy paint 2 nd Coat	Thickness of the layer after drying (DFT): 100 microns







4. STRUCTURAL STEEL FABRICATION AND ERECTION WORK

The structural steel for Construction of Warehouse for material storage at Hooghly CSL area have to be designed by RCC & PEB structural consultant or Chartered Engineer prior to execution of work at site to take the permanent loads of all Dead loads, handrails, lighting fixtures, wind load, earthquake load, seismic load etc. and moving loads to be considered at the time of design. The fabricated/epoxy painted structural steel will be retained as it is permanently. The cost of structural designer to be considered at the time of quoting the rate by the bidder. No additional cost will be paid by Client Hooghly CSL. For Fabrication work at site, skilled personnel will be required to carry out the work at constrained space and having the experience of work done around marine conditions. **Methodology for fabrication and execution of work will have to be submitted by the contractor.**

The fabrication and erection of structural steel work shall be in compliance with:

- 4.1.1. General specifications for structural steel work as per IS: 800.
- 4.1.2. Necessary drawings to be prepared by the contractor to be got approved through Hooghly CSL before execution of work.
 - 4.1. The fabrication and erection of steel work shall consist of accomplishing of all jobs including providing all labour, tools and plant, all materials and consumables such as welding electrodes, bolts and nuts (GKW Quality) Oxygen and Acetylene gases, oils for cleaning, etc., all of approved quality as per the relevant IS Specifications. The work shall be executed according to the drawings, specifications and relevant IS codes in an expeditious and workmanlike manner and of best standard to the complete satisfaction of the Engineer of Hooghly CSL.
 - 4.2. All materials shall be new and shall conform to the respective specifications as specified. The use of equivalent or higher grade or alternative materials will be considered only in very special cases subject to the approval of the Engineer of Hooghly CSL.
 - 4.3. Structural steel shall conform to IS: 226 or IS: 2062. Steel plates for crane girders shall conform strictly to IS: 2062. Bolts and nuts shall be of GKW Quality and in accordance with IS: 1363.
- 4.4. The fabrication work shall be done in accordance with IS: 800, in addition to the following: The fabrication work shall be done as per the approved fabrication drawings or as directed. The connections shall be welded or bolted as per the approved drawings or as directed. The work shall include also fabrication of built up section, if required. Any fault fabrication pointed out at any stage of the work by HOOGHLY CSL shall be made good by the contractor at his own cost.

The structural steel member shall be cut mechanically or by oxy-acetylene flame. All edges cut by oxy-acetylene process shall be cleaned of all slag materials prior to assembly. Edge preparation for welding of members more than 10mm thick shall be done by edge cleaning machine only.

- 4.4.1. All bolt holes shall be drilled. The drilling shall be made to the diameter specified in the drawings. No enlarging of holes by filling, by man drilling or oxy-acetylene flame shall be allowed.
- 4.4.2. The assembly of structural members shall be done with proper jigs and fixtures to ensure the correct positioning of the members. The first component / assembly fabrication in such jigs and fixtures shall be inspected thoroughly by the contractor and then offered to the Engineer of Hooghly CSL for approval before proceeding with the fabrication.







- 4.4.3. All welding shall be done either manually by the shielded metallic arc process. Welding shall be carried out only by fully trained and experience approved welders. All welds shall be usually made continuous and watertight. The welding electrodes shall conform to IS:816, low hydrogen type covering or equivalent.
- 4.4.4. The erection work in general shall be carried out as required only after approval by the Engineer of Hooghly CSL.
- 4.4.5. All scaffolding work required for the erection work will have to be made by the contractor and included in the structural steel rate.
- 4.4.6. Positioning, levelling of the structural members and their alignment shall be done in accordance with the relevant drawing and to the complete satisfaction of the Engineer of HOOGHLY CSL.
- 4.4.7. The various parts of the steel structure shall be done so erected so as to ensure stability against inherent weight, wind and erection trusses.
- 4.4.8. All field assembly and welding shall be executed in accordance with the requirement of the relevant fabrication drawings. The bolted joints shall be tightened so that the entire surface of the bolt heads and nuts shall rest on the members. For parts with sloping surfaces tapered washers shall be used.
- 4.4.9. Any faulty erection done by the Contractor shall be made good at his own cost. The contractor shall satisfy himself about the levels, alignment, etc., before starting the erection work.

4.5. CONSTRUCTION SAFETY

- IS: 3696(Parts I & II) Safety code for scaffolds and ladders.
- IS: 7969 Safety code for handling and storage of building materials.
- IS: 8989 Safety code for erection of concrete framed structures.

MEASUREMENTS

IS:1200 (Part 1 to 23) - Method of measurement of building and engineering works

4.6 M.S. Tubular Hand Railing

Material

M.S. tubes for hand railing shall be 50mm outer diameter, unless specified of mild steel medium grade conforming to IS: 1239, vertical rolled steel angles etc. confirming to IS-808.

Toe/Base plates shall be of mild steel conforming to IS: 226

Fabrication

Hand railing shall be fabricated strictly as per the "Approved for Construction" fabrication drawings prepared by the Contractor based on design drawings and standards. All tubes shall be straight and without any dents / deformations. Tubes shall be cut and ends shall be prepared to a neat and workman like finish. All elements shall be directly welded. Tubes shall be cold bent to shape and curvature in case of discontinuous ends of handrails. Lower ends of vertical posts shall be cut and splayed (for grouting in pockets provided in the concrete members). For removable type of hand railing, suitable base plates (with provision for bolting) shall be welded to the lower end of vertical posts.

Erection / Fixing

Hand railing shall be fixed to the bearing members by welding / bolting / grouting as indicated in the drawings or as directed by the Engineer-In-Charge.

Painting

MS tubes shall be cleaned (both the surfaces) with wire brush and given two coats of yellow zinc chromate primer on the plain surface after fabrication conforming to IS:2074 and 2 coats of approved Epoxy paint over one coat of primer of zinc chromate to be applied per specifications described under-Steel work specifications.



5.1. DETAILS OF SCOPE OF WORK: -

<u>Section 1</u>: Design, Manufacturing, Supply & Execution of Structural Material by the Contractor. Requirement of Warehouse Details:

Sr. No.	Nomenclature	Description
1	Width (m)	22.5 MTR Out to Out
2	Length(m)	27 MTR Out to Out
3	Height (m)	6.0 MTR CLEAR AT EAVE
4	Roof Slope	1:10
5	Bay Spacing along Building length	AS PER DESIGN & DRAWING
6	Type of Bracing in Sidewalls	Rod and angle bracings
7	Rolling Shutter Size	4.0 M X 5.0 M
8	Canopy	As per design
9	Single Panel Structural Door	0.9 M X 2.1 M
10	Wind driven turbo ventilator on roof	AS PER DESIGN & DRAWING
11	Special Condition	 All Columns are fixed base and starting from FFL.
		 All secondary members are Built up and cold rolled
		and cold formed and spacing is as per our standard
		design. The Structure is to be designed for normal working condition and under no circumstances the offered building should be subjected to high temperature (>55deg C)
12	EAVE GUTTER	• 0.5 MM THICK GI GUTTER
13	Downspouts	0.5MM THICK PPGL 150AZ 550MPA WITH COVERING
14	Trims Flashings	0.5MM THICK PPGL 150AZ 550MP
15	Self-drilling screws	Xylon coated with EPDM washer

Roof Panel -JSW		
	Profile Sheet	0.50MM PROFILED THICK Color Coated
Single Skin	Material	AZ150 GALVALUME 550MPA
	Finish	PPGL COLOR COATED
	Color	AS per client approval
Trims +Flashings		0.5mM thick bare AZ150 GALVALUME 550MPA
Wall panel (Claddin	ng) - JSW	
	Profile Sheet	0.50MM PROFILED THICK COLOR COATED GALVALUME
	Material	AZ150 GALVALUME 550MPA
	Finish	PPGL COLOR COATED
Trims +Flashings		0.50MM THICK COLOR COATED AZ150 GALVALUME 550MPA
Eave Gutter +		0.50MM THICK COLOR COATED AZ150 GALVALUME 550MPA
Downspouts		with 100mm /Hr rain intensity



Standard Material Specifications-

St	ructural Components		Specifications	
1	BUILT UP SECTIONS		345MPA, MAKE:TATA/JSW/ESSAR	
2	Hot Rolled Sections	Beams & Channels	As per IS 2062-E250A,250MPA	
		Angles	As per IS 2062-E250A,250MPA	
3	Secondary Material	Pre-Galvanized	MAKE:TATA/JSW/ESSAR	
5	Bracing Material	ROD	Grade Fe-250	
6	Anchor Bolts	ROD	Grade Fe-250	
7	Primary Connection Bolts		High strength Bolts, ASTM A325/8.8Grade	
8	Secondary Connection Bolts		MS Bolt 4.6Grade	
sp	ecified.		sheeting material unless otherwise	
Pa	int Scheme Primary & Second	lary Structural Mem	bers	
Pr	imer and paint			
Fo	For Primary Members only Epoxy Paint			
Secondary Members PRE-Galvanized				







6. ROOFING:

Semi-Corrugated Colour coated steel sheet single skin for Roofing/ Cladding:

6.1 Material

• Product - TRACDEK, HI-RIB AZ 150 GSM SMP Galvalume • 0.50 mm (including metallic coating) cold rolled galvalume steel, 550 MPa yield stress (ASTM A 446 Grade-E) with hot dip metallic coating of AZ 150 (150 gm / Sq.m, zinc / aluminium alloy coating of 55% and 45% respectively conforming to ASTM 792/AS 1397).

6.2 Storage on Site

Storage /stacking of the material shall generally in confirmation with IS 4082 unless otherwise specified by the manufacturer. Material shall be protected from damage while stored on site. When they are stacked for any length of time, it is recommended that cover be provided. Packs of sheets shall be kept dry in transit and on site to prevent water and / or condensation being trapped between adjacent surfaces. Packs of sheets standing on site shall be stored clear off the ground. Sheets shall be handled using clean dry gloves.

6.3 Paint

20 microns' exterior coat of silicon modified polyester (SMP) paint system over 5- micron polyester back coat over 5 micron approved primer. Colour of the roofing and cladding sheet shall be as approved by the Employer

6.4 Laying and fixing

Roofing sheets shall be factory cut and supplied in required lengths (upto 12m) to suit shop drawings. Sheets shall be crest fixed to purlins with 12 x 14 x 55 mm mechanically galvanized selfdrilling fasteners with EPDM seals (one fastener on each crest, unless specified). Colour caps same as that of roofing to be supplied along with fasteners. End laps of roofing to be minimum 200 mm. Cladding sheets shall be supplied in required lengths (upto 12 m) to suit shop drawings. Sheets shall be valley fixed with 12 x 14 x 20 mm mechanically of 273 galvanized Self drilling fasteners with EPDM seals (one fasteners in each valley, unless specified). Colour caps same as that of cladding to be supplied along with fasteners. End laps of cladding to be minimum 100 mm. Roofing and cladding shall generally comply with the following: • Slope of roofing shall be as shown on approved fabrication drawing. • Cut panels, sheets and flashings shall give clean true lines with no burrs. • Cut openings to minimum size necessary. • Lay panels and sheets with exposed joints of side laps away from prevailing wind unless shown otherwise on drawings. • Panel and sheet ends, laps and raking cut edges fully supported and with fixings at top of lap unless otherwise specified. • Drill holes, position at regular intervals in straight lines, centred on support bearings or as shown on the drawing. • Remove dust and other foreign matter before finally fixing panels and sheets. • After completion check fixings to ensure water tightness. • Cut edges paint to match face finish.

6.5 Finish

The roof when completed shall be true to lines and slopes and shall be leak proof. The ridge should be notched at the crest & turned down, at the ridge the valley of the roof to be turned up to prevent entry of water & dust.

6.6 Safety Precautions

No person other than workmen employed by the roofing contractor shall be permitted access to any area over which the sheeting is being laid. Cat ladders or roof boards should in variably be used by men working on the roofs. The observations of this rule which is advocated primarily on the grounds of safety, will also avoid damage to the roofing materials. All personnel on roof top shall have safety belts tied to life-line attached from the ridge to the eaves and also any other safety as per requirement of the manufacturer's instructions.

6.7 Scaffolding for cladding

Only steel 'H' frames shall be used for scaffolding. The scaffolding shall be design to execute the work at 30 meters' height and same shall be checked from the Engineer-In-Charge.

6.8 Material warranty

At least minimum 10 years' warranty against corrosion of material shall be give



6.9 Leakages

Leakages if any, observed during contract period, including 2 years after expiry of defects liability period rectification and maintenance shall be the responsibility of the contractor at his own cost.

6.10 Colour coated sheet for flashing, capping & trims, etc.:

6.10.1 Material

These shall be formed out of same substrates and corresponding thickness as that of the roofing / cladding sheets and shall be supplied in standard lengths of 2.5 m, unless specified in the required shapes and girths.

6.10.2 Fixing

These shall be supplied in required lengths (upto $2.5\,\mathrm{m}$) to suit shop drawings and shall laid / fixed as per approved fabrication drawing. These shall be stitched to the roofing / cladding with $10x12x20\,\mathrm{mm}$ hex-head mechanically galvanised self-drilling fasteners with EPDM seals at every $500\,\mathrm{mm}$ c/c, unless specified. The end laps shall be stitched at minimum every $50\,\mathrm{mm}$ c/c unless otherwise specifically instructed by the manufacturer.

6.10.3 Finish

The edges of the flashing / capping and Trims shall be straight from end to end and their surfaces should be plane and parallel to the general plane of the roof. The ridges and hips shall fit in squarely on the sheets. Storage, paint, safety precautions, warrantee etc. shall be as described under roofing and cladding specifications.

6.11 <u>2mm thick Fiber Reinforced Plastic corrugated transparent sheet Materials</u>

Manufacturer – Product reference here below given are of M/s. Interarch Building Products

Private Limited. However, other similar approved manufacturer's product reference can be used subject to prior approval of Engineer-In-Charge.

6.11.1 Product Reference

FRP sheets shall be supplied in 2mm thick matching to the roof profile in required length to suit approved fabrication drawing. Storage of materials, safety precautions, warrantee, leakages etc. shall be as described under roofing/cladding specifications.

6.11.2 Fixing

FRP sheets shall be fixed to purlins with $12 \times 14 \times 55$ mm fasteners with EPDM seal and having cyclonic washers. Butyl tape shall be applied on the side/ end lap of FRP sheets and near about roofing sheets. Fix in profile, in accordance with manufacturer's day light system recommendations, technical manual. Fixing should not be over tightened. Overlap (side and end) as per approved drawing.

6.12 Color coated steel sheet for gutters:

6.12.1 Material

These shall be formed out of same substrates and corresponding thickness as that of the roofing / cladding sheets and shall be supplied in standard lengths of 2.5 m. in the required shapes and girths.

6.12.2 Profile

The depth, width and height should be as per the rainfall catchments area and as approved.

6.12.3 Fixing

Gutters shall be fixed as per profile and drawings approved for construction. The gutter shall be fixed on MS brackets of size and location as shown on the drawings. The end laps of gutter shall be bolted with galvanized (175 gauge minimum) nuts and bolts with metallic washers to suit design

6.12.4 Finish

The edges of the gutters shall be straight from end to end and their surface should be plain of the roof. Storage, paint, safety precautions, warrantee etc. shall be as described under roofing and cladding specifications.



8. LIST OF PREFERRED MAKE- CIVIL WORK

Sr. No.	DESCRIPTION	APPROVED MAKES
1.	CEMENT	Malabar, Ultra Tech, Zuari, Ramco, ACC, India Cements, Dalmia, Ambuja, J.P. Rewa, Vikram, Shri Cement, Birla Jute and Cement Corporation of India, Chettinadu, JSW Cement
2.	REINFORCEMENT STEEL	Tata, Vizag, SAIL, TISCO, IISCO, RINL , Jindal Steel and Power Ltd, JSW Steel Ltd
3.	ROOF PANEL	JSW, TATA
4.	WALL CLADDING	JSW
5.	BUILT UP SECTIONS	Tata, Vizag, SAIL, Jindal Steel & Power Ltd , ESSAR, Apollo
6.	Welding rode	ESAB, Advani, Best Arc, Solar or equivalent as approved
7.	Industrial Flooring	Euro Build, BASF, Fosroc, Sika, Pidilite or Equivalent as approved
8.	Primer	Altek, Berger, Asian, ICI, Jotun or equivalent as approved
9.	Synthetic Enamel Paints & Primer	ICI (Akzonobel), Asian Paints, Berger, Jotun or equivalent as approved
10.	Rolling Shutter	Popular, Gandhi Automation Pvt. Ltd, Falcon, Jacob Engineering or equivalent as approved
11.	Steel doors /windows	Shakthi hormann, Indigatech, Ozone Overseas Pvt. Ltd, NCL Alltek & Seccolor Ltd, Kutty Flush Doors & Furniture Co. Pvt. Ltd, Madhu Industries or equivalent as approved
12.	SS Hand Rails	D Line, Sky Port, Q-railing India Pvt. Ltd, Impact metals, Cochin tech ,or equivalent as approved
13.	Galvalume Roofing sheet	Tata Blue Scope, Interarch, LLOYD Insulations or equivalent as approved
14.	· Pre-engineered Building system	Kirby, Tata Blue Scope, Lloyd Insulations (India) Ltd., Zamil steel, Smith Structures or OWN make (with proof) as approved by the Engineer
15.	Epoxy chemical for anchoring grout	HILTI India Pvt. Ltd, Fisher, Euro Build, Pidilite or equivalent as approved
16.	Chemical /Mechanical Anchor Fasteners	HILTI, Fisher, MKT (Germany), Black and Decker India Ltd., MAPEI, SS Fasteners Pvt. Ltd or equivalent as approved.
17.	Plasticisers, Non shrink grout	Fosroc, BASF, Krishna conchem, Fairmate, Eurobuild Construction Chemicals & Coating, MYK Schomburg or equivalent as approved
18.	ELECTRICAL FITTINGS	HAVEL'S, ANCHOR, PREETAM
19.	High tensile Bolts /Screws	Hilti, Fischer, Unbrako ,TVS, Euro Build or equivalent as approved
20.	Bolts /Screws (SS 316)	HILTI, Fischer, MKT (Germany), S.S. Fasteners Pvt Ltd or equivalent as approved
21.	Self-tapping screw	Corroshield or equivalent
22.	Wind driven turbo ventilator	TurboVENT, MUKTA ENGINEERS, Thakurela, Shree Shakti, Air Eco or equivalent as approved



Note:

- i) Brand deviation if any, needs to be tested for cement, reinforcement steel and structural steel prior to using it for construction only if above approved makes a available and after Prior confirmation/approval from Engineer In-charge.
- ii) Brand deviation if any, for other finishing items can be changed only if above approved makes are not available and after Prior confirmation/approval from Engineer In-charge. iii) Whenever specification of BOQ item is not mentioned; then CPWD specification shall be applicable.
- iii) Wherever make is specified in BOQ then manufacture's specifications & procedure shall be applicable.
- iv) Wherever no specifications or make is specified than work is to be carried out as per the written direction of Engineer-In-Charge.

E PROTE PROTECTION OF STREET OF STRE



Bid's Reference No. & Date:

Annexure-3

Self-Declaration to be given by the bidder in Letter head

Bidder's Name & Addre	ss:		
Person to be contacted:		a gute un lecence a l'Alla e lec	
Designation:			
Telephone No.:	Fax No.:	Email:	
Sector Undertaking of 2. If HCSL finds that, we Government department time. In such case, we	or Government depart we have been blacklis nent, and then HCSL of e are aware that, EMD, are confirming herew	sted/debarred by any of the	Public Sector Undertaking or te the contract at any point of guarantee etc will be forfeited
For and on behalf of the	firm		
(Firms Name & Address	5)		
(Signature of Authorize Name:	d Signatory)		
Designation			
Phone No.:			
Seal:			
Date:			
Place:			



Acceptance of the Terms & Conditions by the Tenderer

(To be given in the Letter Head of Contractor/Contractor)

- 1. I/We have understood clearly the Specifications, scope of materials, scope of work, General, Specific and Commercial Terms and Conditions of the Tender. I shall scrupulously abide by the same.
- 2. I/We have understood clearly that this is a supply/ installation/testing/commissioning work, for which I am/we are required to quote unite price + GST as applicable.
- 3. I/We certify that to the best of my /our knowledge the particulars furnished above is true.

(Signature with company seal)

For and on behalf of the company Name & Designation of Signatory.



POWER- OF-ATTORNEY

(ON THE LETTER HEAD OF THE COMPANY)

Chief Executive Officer Administrative Building, HCSL Premises, Satyen Bose Road, P.O Danesh Shaikh Lane, Nazirgunge, Howrah, West Bengal 711109.	
Dear Sir,	
do hereby confirm that Mr./Ms	(Name and Address) is /are authorized to reement on our behalf with you against Tender No.
We confirm that we shall be bound by all and whatso	ever our said agents shall commit.
	Yours faithfully,
	Signature:
	Name & Designation:

For & on behalf of: Signature, name and seal of the certifying authority



Security Instructions and HSE Guidelines

Security Instructions

- 1. All contractors and their personnel are bound to comply with the security instructions/ orders of the Shipyard issued from time to time.
- 2. Movements of all persons entering through the Gate should be recorded at the Gate.
- 3. 100% checking and frisking of all contractors/contract workmen entering into the yard will be done
- 4. All vehicles carrying materials shall have material entry pass. Such material carrying vehicles shall be permitted entry to the Factory Area on production of material pass. All contractors and their workmen shall keep personal vehicles in the designated parking area.
- 5. All persons engaged for various works in the Yard through contractors should produce any of the following documents for entry at Site.

Attested copy of any of the documents mentioned below:

- a) Photo identity card issued by government bodies
- b) Electoral identity card with clear photo and address particulars
- c) Driving license with photo and address particulars
- d) Passport/ attested copy of passport with photo and address particulars

HSE Guidelines

Occupational Health, Safety & Environmental requirements of Hooghly Cochin Shipyard Ltd. shall include the following:

- 1. The contractor (or a sub- contractor performing work on behalf of the contractor) is deemed to comply with the occupational health, safety and environmental policy of the company and also to all operational controls/standard operating procedures and shall undertake the work in total compliance with the HSE requirements of the Yard.
- 2. The contractor shall undertake the work in total compliance with all applicable legal /statutory requirements related to occupational health, safety and environment effective in Kolkata, in the state of West Bengal.
- 3. It is the sole responsibility of the contractor to assure that any subcontractors who shall perform works in company lands/facilities/worksites on behalf of the contractor, is also following all HSE requirements of the company and the health/safety/environmental rules effective in the state.
- 4. The contractor shall provide/implement and operate/practice all occupational health, safety and environmental management measures/facilities for their period of contract, in their activities/at their work sites, which shall be required by the health safety environmental rules established and effective in the state, at their own cost.
- 5. If any contractor failed to comply with or violated any clauses/requirements of occupational health, safety and environmental rules effective in the state, in their activities or at work sites and the same shall be exposed to the government or any competent authorities upon inspections, the contractor shall solely be responsible for all liabilities caused by his/her action and shall be responsible for paying the penalty and taking the stipulated corrective actions insisted by the authorities within the specified time, at their own cost. Any liability to the company in this regard needs to be compensated by the contractor.
- 6. Upon the completion of the work, contractor shall clear the area and shall not leave any occupational health/safety/environmental liabilities to the company, from their activities at the worksites.
- 7. Lifting appliances should be fixed and securely anchored.
- 8. Any clarification related to HSE requirements of the yard, may be obtained by the contractor from the authorized representative of the contract, prior to the commencement of work.



Form of Bank Guarantee towards EMD

(On stamp paper of value Rs.200/-)

This guarantee shall remain in full force and effect during the period that would be taken for the finalization of the tender and till the HCSL certifies that the terms and conditions of the said tender have been fully and properly carried out by the said contractor and accordingly discharges this guarantee or for Six Months from the date of issue of this guarantee whichever is earlier. A notice of the claim under this guarantee may be served on the Bank within Six Months after the said period in which case the same shall been force able against the Bank not withstanding the fact that the same is enforced after the expiry of the said period.

The decision of the CEO, HCSL as to whether the occasion or the ground has arisen for the demand of the surety form Bank shall be final. The HCSL shall be at liberty to act as though the Bank were the principal debtor.

We, the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the HCSL in writing and agree that any change in the constitution of the said contractor or the said Bank shall not discharge our liability here under.



In witness sealthis	whereof da			hand Twot	and
nd and					
Place:					
Date:					



Guarantee No.....

Amount of Guarantee Rs......

Guarantee Cover From.....

Last Date of Lodgement of Claim......

Annexure-8

PROFORMA OF BANK GUARANTEE FOR PERFORMANCE GUARANTEE

(On stamp paper of value Rs.200/-)

demand, under the terms and condition of an Agreement between HCSL
andfor the execution of the work
ofdateddated
(hereinafter called "the said agreement") of Performance guarantee/ Security Deposit for the due fulfilment
by the said contractor(s)of the terms and conditions contained in the said agreement, on production of a
Bank Guarantee for
Rsonly)We(N
ame of Bank) (hereinafter referred to as "the Bank) at the request ofcontractor(s) do here by
undertake to pay to HCSL an amount not exceeding Rs(Rupeesonly) on
demand.
2. We (name of bank), do hereby unconditionally and irrevocably undertake to pay the Employer
to the extent of Rs/-(RsOnly) without any demur merely on a demand from the
Employer stating that the amount claimed is due by way of loss or damage caused to or suffered by the
Employer by reason of breach by the Contractor of any of the terms and conditions contained in the said
contract. Any such
demand made on the (name of bank) shall be conclusive as regards to the amount due payable by the
ban kunder this Guarantee. However, our liability under this guarantee shall be restricted to an amount not
exceeding Rs/-(RsOnly)
3. Our liability under this present guarantee is absolute and unequivocal and we undertake to pay the
Employer the amount so demanded without seeking the consent of the Contractor and notwithstanding the
raising any dispute and/or disputes or filling any suitor proceeding before any court or tribunal Authority.
The payment so made by us under this guarantee shall be a valid discharge of our liability for payment here
under and the Contractor shall have no claim against us for making such payment.
4. Notwithstanding anything to the contrary, Employer's decision as to whether the Contractor has made
any default or defaults and the amounts to which Employer is entitled by reason therefore shall be binding
on us and we shall not be entitled to ask the Employer to establish the claims under the guarantee but will
pay the same on demand without objection.
5. We, (name of bank),, further agree that the guarantee herein contained shall remain in full force and
effect during the periods that would be taken for the performance of the said contract and that it shall
continue to be enforceable till all the dues of the Employer under or by virtue of the said contract have been
fully paid and its claims satisfied or discharged and till the Employer certifies that the terms and conditions
of the said contract have been fully and properly carried out by the said contractor and accordingly

discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or

6. This guarantee shall not be recoverable by us except with the written consent of the Employer and shall continue to be enforceable till should it be necessary to extend this guarantee beyond the said date.

before we shall be discharged from all liability under this guarantee thereafter.



we undertake to extend the validity of this guarantee for such further period as may be required by the Employer, subject to the Employer giving in writing to Contractor the request for extension, and such extension shall be given before the expiry of the forthwith become payable to the Employer, not withstanding that the contract is continuing and/or the Employer has or has not terminated the contract or preferred any claim against the Contractor.

- 7. We (name of bank)..., further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend the time of guarantee by the said Contractor from time to time or to postpone for any time or from time to time exercise any of the powers exercisable by the Employer against the said Contractor and to forebear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or any indulgence which under the law relating to sureties, would but for this provision, have effect of so relieving us.
- 8. This guarantee shall not in any way be affected due to change in our constitution or by your taking or varying or giving up any securities from the Contractor or any other person, firm or Employer on its behalf or by change in the constitution, winding up, dissolution, insolvency or death as the case may be of the contractor.
- 9. In order to give full effect to the Guarantee herein contained you shall be entitled to act as if we are your principal debtors in respect of all your claims against the contractor hereby guaranteed by us as aforesaid and we here by expressly waive all our right of surety ship and other rights if any which are in any way inconsistent with the above or any other provisions of this guarantee.
- 10. We, (name of bank)...,.... also undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.
- 11. Notwithstanding anything contained herein above:
- a. Our Liability under this guarantee shall not exceed Rs...../(Rs...../Rs.....Only).
- b. This Bank Guarantee shall be valid up to and including and
- c. We are liable to pay the guaranteed amount or any part thereof under this Bank

Guarantee only and only if you serve upon us a written claim or demand on or before the expiry of this Guarantee.

Dated the	day of
Dated the	aay or

SIGNATURE AND SEAL OF BANK

FULL ADDRESS OF THE BANK



PROFORMA OF BANK GUARANTEE FOR SECURITY DEPOSIT

(On stamp paper of value Rs.200/-)

	Guarantee No
	L. In consideration of the Hooghly Cochin Shipyard Limited (hereinafter called HCSL) having agreed to exempt
	(Name of Bank) (hereinafter referred to as "the Bank) at the request ofcontractor(s) do hereby undertake to pay to HCSL an amount not exceeding Rs(Rupeesonly) on demand.
- 4	2. We (name of bank), do hereby unconditionally and irrevocably undertake to pay the Employer to the extent of Rs/-(Rs
	3. Our liability under this present guarantee is absolute and unequivocal and we undertake to pay the Employer the amount so demanded without seeking the consent of the Contractor and notwithstanding the raising any dispute and/or disputes or filling any suit or proceeding before any court or tribunal Authority. The payment so made by us under this guarantee shall be a valid discharge of our liability for payment here under and the Contractor shall have no claim against us for making such payment.
	4. Notwithstanding anything to the contrary, Employer's decision as to whether the Contractor has made any default or defaults and the amounts to which Employer is entitled by reason therefore shall be binding on us and we shall not be entitled to ask the Employer to establish the claims under the guarantee but will pay the same on demand without objection.
	5. We, (name of bank),, further agree that the guarantee herein contained shall remain in full force and effect during the periods that would be taken for the performance of the said contract and that it shall continue to be enforceable till all the dues of the Employer under or by virtue of the said contract have been fully paid and its claims satisfied or discharged and till the Employer certifies that the terms and conditions of the said contract have been fully and properly carried out by the said contractor and accordingly discharges this guarantee. Unless a demand or claim under this guarantee is made on us in writing on or before we shall be discharged from all liability under this guarantee thereafter.



- 6. This guarantee shall not be recoverable by us except with the written consent of the Employer and shall continue to be enforceable till should it be necessary to extend this guarantee beyond the said date. we undertake to extend the validity of this guarantee for such further period as may be required by the Employer, subject to the Employer giving in writing to Contractor the request for extension, and such extension shall be given before the expiry of the forthwith become payable to the Employer, notwithstanding that the contract is continuing and/or the Employer has or has not terminated the contract or preferred any claim against the Contractor.
- 7. We (name of bank)..., further agree with the Employer that the Employer shall have the fullest liberty without our consent and without affecting any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend the time of guarantee by the said Contractor from time to time or to postpone for any time or from time to time exercise any of the powers exercisable by the Employer against the said Contractor and to forebear or enforce any of the terms and conditions relating to the said Contract and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or any indulgence which under the law relating to sureties, would but for this provision, have effect of so relieving us.
- 8. This guarantee shall not in any way be affected due to change in our constitution or by your taking or varying or giving up any securities from the Contractor or any other person, firm or Employer on its behalf or by change in the constitution, winding up, dissolution, insolvency or death as the case may be of the contractor.
- 9. In order to give full effect to the Guarantee herein contained you shall be entitled to act as if we are your principal debtors in respect of all your claims against the contractor hereby guaranteed by us as aforesaid and we here by expressly waive all our right of surety ship and other rights if any which are in any way inconsistent with the above or any other provisions of this guarantee.
- 10. We, (name of bank)...,.... also undertake not to revoke this guarantee during its currency except with the previous consent of the Employer in writing.
- 11. Notwithstanding anything contained herein above:
- a. Our Liability under this guarantee shall not exceed Rs....../- (Rs.......Only).
- b. This Bank Guarantee shall be valid up to and including and
- c. We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before the expiry of this Guarantee.

Dated theday of......SIGNATURE AND SEAL OF BANK
FULL ADDRESS OF THE BANK



VENDOR DETAILS (to be submitted along with TECHNICAL BID)

1	Name of Bidder/Firm	
2	Registered office Address of Company/firm in Kolkata/Howrah: Local office address at Kolkata/Howrah (if held):	
3	Telephone No./Fax No./Mobile No:	
4	E-mail address:	
5	Names of the contact person & Designation:	1) 2)
		3)
6	Type of Entity- Pro-praetorship / Partnership firm/company/NSIC/MSME Category etc. (Please attach registration certificate of Firm/Partnership agreement/proprietorship documents)	
7	Cost of Tender Details (DD No. Name of Bank)	
8	EMD Details (DD No. Name of Bank)	
9	PAN Card Number (Self-attested copy of PAN card has to be Submitted) GST Registration No.	
10	(Self-attested copy has to be Submitted) Whether the agency has been blacklisted/de barred or given tender holiday or contract terminated before expiry of the contract period by any govt. autonomous bodies/organizations where bidder has provided services earlier due to deficiencies in service or misconduct etc.	Yes/No (Please tick as applicable) If yes, please furnish details on a separate sheet

•	Certified that th	he above	information	is true to tl	ne best of	our l	belief	and information.
---	-------------------	----------	-------------	---------------	------------	-------	--------	------------------

TAB				
D.	2	0	0	
Pl	a	L	C	

Date:

Signature of Supplier/Authorized signature of firm/agency:

Name of Supplier or authorized signatory of firm/agency:

Designation:



DETAILS OF PAST EXPERIENCE OF BIDDERS FOR SIMILAR WORKS

(Shall be submitted under Company's letterhead)

SI. No.	Name & Location	cation Complete Contract					Details Reference No. & Da		
	of Project	address including Phone No. with contact Person		Commen- cement date	Scheduled completion date	Actual completion date	work including major items of work involved	of letter of intent & completion certificate enclosed	
1	2	3	4	5	6	7	8	9	
				413					

Note: Attested copy of work completion certificate for Similar Works where experience is being claimed should be submitted.

Signature & Seal of the Bidder(s)





HOOGHLY COCHIN SHIPYARD LIMITED

A wholly owned Subsidiary of Cochin Shipyard Limited, A Government of India Enterprise under Ministry of Ports, Shipping and Waterways

Site Visit Slip

I,	, author	rized representa	tive of	
	address:			
completely related to " structure-Warehouse	Turnkey basis jo	b for Design, Su	ipply and Erecti	

Stamp and Signature of the bidder,

Signature of HCSL Official



CHECK LIST

Bidder should compulsorily fill this check list and ensure that all details / documents as mentioned in the Tender Document is submitted along with their bid. Please Put Yes or No (Y/N) in the box and ensure

compliance and specify the page no. of bid submitted.

Sl. No.	Item	Check Box (Yes/No)	Page No of Bid Document	
1	Submitted cost of EMD (Rs. 1,00,000/-) in DD/Cheque/NEFT mode			
2	Submitted Duly filled power of attorney in favour of signatory of bid documents			
3	Submitted techno-commercial tender & Financial tender in separate closed envelopes			
4	Attestation by authorized representative of bidder in all pages of tender document			
5	Submitted un-priced Bill of Quantities in techno- commercial bid			
6	Submitted Undertaking regarding acceptance of terms & conditions mentioned in the tender documents			
7	Submitted Undertaking regarding not blacklisted/put on holiday/terminated by any Govt. dept.			
8	Submitted Details of Annual Turnover Statement along with Audited Balance Sheet and Profit & Loss account for last 03 financial years			
9	Submitted details of present commitments, works under execution with percentage of completion			
10	Submitted site visit slip as per Annex-12			
11	Submitted letter of bid			
.12	Submitted details of similar works executed			
13	Submitted PAN, GST, EPF, ESIC details			
14	Submitted Unpriced Bid			
15	Submitted undertaking regarding conducted Detailed site visit and evaluation and accordingly all required information and data have been collected.			
16	Submitted Priced Bid	77 ()		



Signature & Seal of the Bidders(s)



PRICE BID

Sr. No	Description of Work	Unit	Qty	Rate Quoted (Excluding GST)	Total Amount (Excluding GST)
1	Turnkey basis job for - Design, Supply and Erection of Pre-Engineered Steel Shed - Warehouse for Material Storage including appointment of Licensed Structural designer/Consultant for design of all the structural members for shed, proof checking & approval from third party like IIT/IIEST/JU/NIT, submission of design calculations, submission of method statement for execution, Issue of GFC drawings. Supervision for Steel Shed work, land development work etc. & issue of stability Certificate Stability Certificate.		1		
	and the second second second second				
				Grand Total (Rs.)	

Note:

The work shall be executed on overall lump sum basis and the tender shall be evaluated on overall L1 rate. The item-wise rates quoted in the Rate-reference (Annexure 14A) are indicative and for reference only, and shall be used for the purpose of measurement, preparation of running/final bills and valuation of approved deviations, if any. The Contract shall not be treated as an item-rate of re-measurement contract, and the accepted lump sum amount shall prevail in all circumstances.



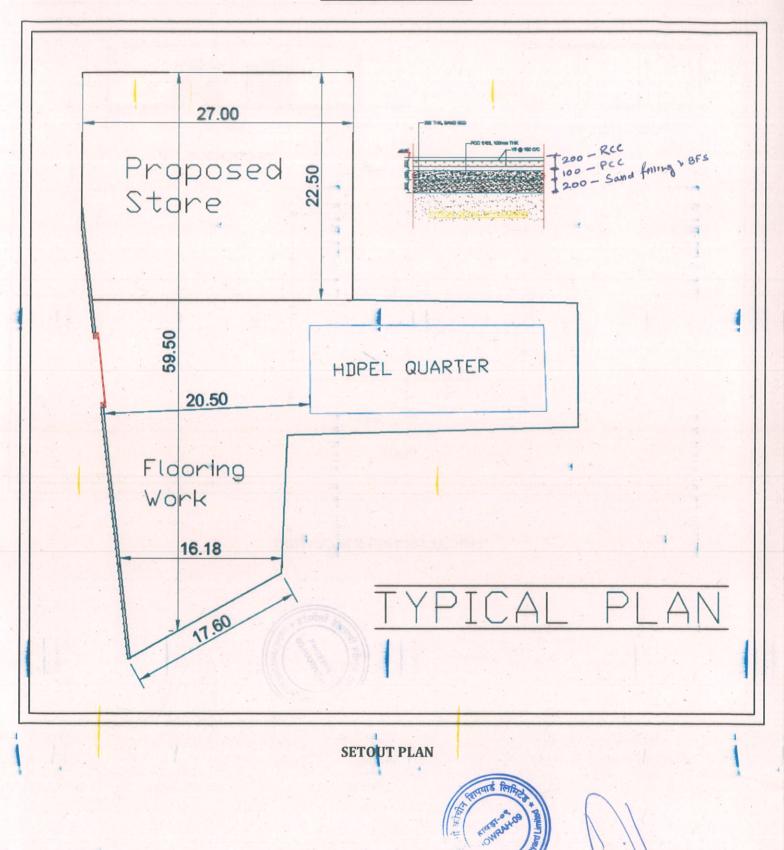




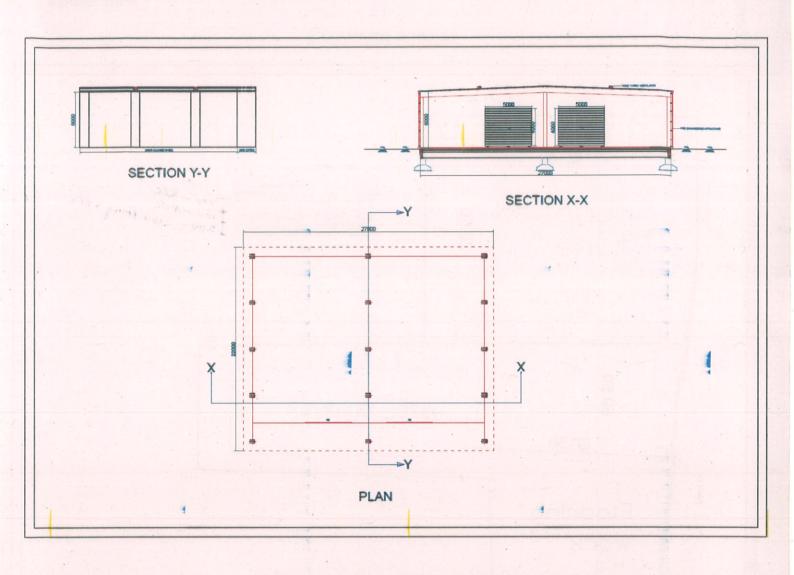
	Rate Reference				
0	Description of Work	Unit	Rate Quoted (Excl GST) (INR)		
	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead dispose the items within the premises of HCSL and lift up to 2.0 m as directed by Engineer-in-charge. All kind of soils	Cum			
	Single Brick Flat Soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with local sand.	sqm.			
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.	cum.			
	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering - All work up to plinth level. 1:2:4 (1 cement: 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)				
5	Centering and shuttering including strutting, propping etc. and removal of form for Foundations, footings, bases of columns, etc. for mass concrete	sqm.			
5	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of cantering, shuttering, finishing and reinforcement - All work up to plinth level. 1:1.5:3 (1 cement: 1.5 coarse sand (zone-III) derived from natural sources: 3 graded stone aggregate 20 mm nominal size derived from natural sources).				
7	Supplying Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete up to plinth level. Grade of bars Fe - 500D or more.	kg.			
8	Providing and fixing 15 cm wide, 45 cm overall semi-circular plain G.S. sheet gutter with iron brackets 40x3mm size, bolts, nuts and washers etc., including making necessary connections with rain water pipes complete.	Mtr.			
9.1	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. 1.00 mm thick with zinc coating not less than 275 gm/m ²	Sqm.			
9.2	Providing Polycarbonate sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm.			
10	Providing and fixing on wall face unplasticized Rigid PVC rain water pipes conforming to IS: 13592 Type A, including jointing with seal ring conforming to IS: 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes. 110 mm diameter	mtr.			
11	Holding down bolt with nut including $100 \times 100 \times 6$ mm plate washer at bottom fitted complete and packing the hole with cement concrete or cement grout as directed. 32MM DIA, 450 LONG	each			
12	M.S. structural works with hollow sections (square or rectangular shape), conforming to IS: 806-1968 & IS:1161-1998) connected to one another with bracket, gusset, cleat as per design, drawing & direction of Engineer-in-Charge complete including cutting to requisite shape & size, fabrication including metal arc welding conforming to IS: 816-1969 & IS: 9595 using electrodes of approved make and brand conforming to IS:814-2004, haulage, hoisting and erection all complete. The rate includes the cost of all M.S. Hollow section, all consumables such as electrodes, gas and hire charges of all tools and plants and labour required for execution and all incidental charges (such as electricity, labour insurance) etc. complete	MT.			
.3	M.S. structural works in columns, beams etc. with simple rolled structural members (e.g. joists, angle, channel sections conforming to IS: 226, IS: 808 & SP (6)- 1964 connected to one another with bracket, gussets, cleats as per design, direction of Engineer-in-charge complete including cutting to requisite shape and length, fabrication with necessary bolting, metal arc welding conforming to IS: 816- 1956 & IS: 1995 using electrodes of approved make and brand conforming to IS:814- 1957, haulage, hoisting and erection all complete. The rate includes the cost of rolled steel section, consumables such as electrodes, gas and hire charge of all tools and plants and labour required for the work including all incidental charges such as electricity charges, labour insurance charges etc. For built up sections / structural members of specified sections weighing not less than 22.5 Kg/m	MT.			
14	Applying priming coat with ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron/steel works	Sqm.			
15	Painting with aluminum paint of approved brand and manufacture to give an even shade. Two or more coats on new work	Sqm.			
6	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum.			
7	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm.			
8	15 mm cement plaster of mix 1:4 (1 cement: 4 fine sand)	Sqm.			
9	Finishing walls with Acrylic Smooth exterior paint of required shade: New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of ecterior primer applied @ 0.90 litre/10 sqm)	Sqm.			
20	Supplying and fixing rolling shutters of approved make	Sqm.			
	Design & Drawing of all the structural members for shed	LO			



TENDER DRAWINGS







TYPICAL SECTION & ELEVATION



Page 55 of 55