

HOOGHLY COCHIN SHIPYARD LIMITED, HOWRAH

**CONSTRUCTION OF NEW PUBLIC TOILET
BUILDING UNDER CSR ACTIVITIES (BY CSL) IN
OLD HDPEL QUARTER AREA OPPOSITE TO
HCSL MATERIAL ENTRY GATE AT
NAZIRGUNGE, HOWRAH**

Tender No. *HCSL/CSR/001/TEN/2021-22*

Administrative Building, HCSL Premises, Satyen Bose Road, P.O.- Danesh
Shaikh Lane, Nazirgunge, Howrah, West Bengal 711109

*(HCSL) HOOGHLY COCHIN SHIPYARD LIMITED
HOWRAH, WEST BENGAL
711109*

Tender No: HCSL/CSR/001/TEN/2021-22 dated 29 11 2021

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.

Tender No. & date	Tender No: HCSL/CSR/001/TEN/2021-22 dated 29 11 2021
Scope of Supply / Work	CONSTRUCTION OF NEW PUBLIC TOILET BUILDING UNDER CSR ACTIVITIES (BY CSL) IN OLD HDPEL QUARTER AREA OPPOSITE TO HCSL MATERIAL ENTRY GATE AT NAZIRGUNGE, HOWRAH (Detailed specification is enclosed separately)
Type of Tender	Single Bid
Probable Amount of Contract (PAC)	Rs 14 lakhs including GST
Last date & time of receipt of tender	13.12.2021 at 15:00 Hrs
Date & time of opening of tender	13.12.2021 at 16:00 Hrs
Completion of Work	04months from the date of issue of Work order.
Officer-in -Charge	Name :Shri. Poulam Chakraborty Designation :Project Officer Email :poulam.c@hooghlycsl.com Phone No :+91 9038104297 Name : Shri. Saheb Guha Roy Designation : Manager (IR&HR) Email : saheb.guharoy @hooghlycsl.com Phone No : +91 91051065932

Tender reference should be clearly indicated on top of the respective envelopes.

Sealed tenders in single cover addressed to The DGM (P&O) shall be **dropped in the HCSL tender box or courier to Hooghly Cochin Shipyard Ltd (HCSL), Satyen Bose Road, Danesh Sk Lane (PO), Nazirgunge, Howrah, West Bengal, PIN -711109** before the due date and time.


For Hooghly Cochin Shipyard Limited
Cdr. P.K. MISHRA (P & O)
ज महानगर (कोचिन एवं प्रचालन) / DGM (P & O)
हृगली कोचिन शिपयार्ड लिमिटेड DGM (P&O)
HOOGHLY COCHIN SHIPYARD LIMITED

TABLE OF CONTENTS

Annexure	Description
1.	Information To The Contractors
2.	General Conditions of Contract
3.	Technical Specification
4.	Drawing
5.	Self-Declaration
6.	Acceptance of Tender by Contractor
7.	Compliance Statement
8.	Power of attorney
9.	Bank Guarantee against Security Period/ Secured advance
10.	NEFT Details
11.	HSE Guidelines
12.	Agreement format
13.	Price Bid Format

INFORMATION TO THE CONTRACTORS

1.01 General Information

Employer

Name : Hooghly Cochin Shipyard Limited (HCSL)

Registered office : Administrative Building,
HCSL Premises, Satyen Bose Road,
P.O. Danesh Shaikh Lane,
Nazirgunge, Howrah,
West Bengal 711109.

Place of Work: Nazirgunge Works, Hooghly Cochin Shipyard Ltd. Satyen Bose Road, PO Danesh SK Lane, Howrah – 711109

Engineer –in – Charge shall mean CEO, HCSL or the authorised representatives appointed by the CSL/HCSL.

Officer in Charge: Shri. Poulam Chakraborty, Project Officer (Civil) & Shri. Saheb Guha Roy, Manager (IR & HR).

Tender Procedure

1.02 Item rate tenders in single cover are invited from eligible Contractors for “CONSTRUCTION OF NEW PUBLIC TOILET BUILDING UNDER CSR ACTIVITIES (BY CSL) IN OLD HDPEL QUARTER AREA OPPOSITE TO HCSL MATERIAL ENTRY GATE AT NAZIRGUNGE, HOWRAH.”

1.03 The schedule of quantities, tender drawings, specifications and commercial conditions of the contract are appended.

Clarification Requests by Bidder

The Bidder is fully expected to have read and clearly understood the bidding documents. It is the responsibility of the Bidder to ensure that all documents are included as per the contents page. Bidder shall examine the Bidding Document thoroughly in all respects and if any conflict, discrepancy, error or omission is observed, Bidder may request clarification up to 03 days prior to Date of opening of Tender. Such clarification requests shall be directed to the emails mentioned.

Contact person for tender clarification:

Name :Shri. Poulam Chakraborty
Designation :Project Officer
Email :poulam.c@hooghlycsl.com
Phone No :+91 9038104297

Name : Shri. Saheb Guha Roy
Designation: Manager (IR&HR)
Email : saheb.guharoy @hooghlycsl.com
Phone No : +91 91051065932

1.04 Tender shall be submitted in two separate sealed covers as given below super scribing the name of work, address of Accepting Authority and the address of the tenderers.

Cover 1.

- a. Duly filled, signed and sealed tender document and commercial Bid ("PART-1" original issued by HCSL plus two Duplicate hard copies, one soft copy)
- b. Copy of PAN & GST registration certificate
- c. Power of attorney or authorization with seal of the company in favour of persons signing the bid (attached as Annexure –8)
- d. Copy of unpriced price bid (attached), Annexure-13.

Cover 2.

- a. Quoted Price Bid (original issued from Hooghly Cochin Shipyard Ltd) duly signed and sealed in the prescribed format.
- 1.05 The Cover 1 of tender (Technical Bid) will be opened on 13.12.2021, 15.00 Hrs at the venue specified. After evaluation of the pre-submitted documents. The responsive tenderers will be opened at 16:00 Hrs on the same day.
- 1.06 After opening the price bid, the rates will be compared, if the rates given in figures and in words differ, the lower of the two, only will be accepted. If the rate and amount differ for a particular line item/s, then the Unit rate of that particular item/s will be taken for evaluation.
- 1.07 Letter of intent (LOI) will be issued to the successful tenderer before the issue of the work order. LOI means an assurance of work order to the contractor by letter or e-mail in accordance with provisions contained therein. This Letter Of Intent will constitute the formation of a contract.
- 1.08 HCSL reserves the right to conduct negotiations with LI Contractor to have possible reduction from the original offer or if the condition so warrants. The bidder shall attend the negotiation meeting in time upon intimation to them by HCSL.
- 1.09 Before commencing the work, the contract and also execute an agreement with in fifteen days from the date of receipt of work order for the work in the required non-judicial stamp paper in the format given as Annexure – 12 “Format of Contract Agreement” given by CSL/HCSL.
- 1.10 Tenders not properly filled or generally not complying with the conditions are susceptible to be rejected.
- 1.11 The tenderers shall quote their most competitive rates against each item of the Schedule of quantities.

The rate thus quoted will be deemed to include the cost of all transportation, insurance, levies, royalties, overheads, contingencies, profits, etc. and the quoted price shall be all inclusive. The total contract price shall also be worked out and entered in. The rates quoted for the successful completion of the total works under this tender shall be fixed

and firm and no escalation or variation will be allowed during the pendency of the contract on any account.

- 1.12 If the tender is made by an individual, it shall be signed with his full name and his complete address shall be given. If it is made by a partnership firm, it shall be signed by a partner of the firm who shall sign with his own name and give the name and address of each partner of the firm and attach a copy of 'Power of Attorney' authorizing him to sign on behalf of the other partners. A certified copy of the 'Registered Partnership Deed' shall also be submitted along with the tender.

If the tenderer is a Company, the authority of the signatory to sign on behalf of the Company and the **Memorandum and Articles of Association** shall be submitted.

1.13 **Security Deposit**

Security Deposit (SD) shall be at 5% of the contract value or value of the work done whichever is higher and shall be recovered from Running 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. Security deposit deposited shall be released on satisfactory completion of 1 year of defect liability period.

- 1.14 The Contractor is the employer of all the worker's engaged for this work and should therefore take all required registrations, EPF & ESI (if applicable), insurance cover, etc. and pay amount due to labour welfare funds constituted by the Union Government and Government of West Bengal from time to time.

- 1.15 All statutory deductions including income tax at source, workers welfare fund at the rates applicable shall be made from the amount eligible to the Contractor in each part bill at current rates. Any tax omitted to be deducted in any part bill shall be deducted in the subsequent bills/final bill or from any amount due to the Contractor.

1.16 **Period of Validity**

The tender shall remain valid for acceptance for a period of 90 days from the date of tender opening. Any attempt on the part of the tenderers or their agents to influence

the Shipyard in their favour by any means of canvassing will disqualify the tenderers and the tender submitted will be considered as void.

1.17 Quantum of Work

- i. A schedule of approximate quantities for various items accompanies this tender. It shall be definitely understood that the Client do not accept any responsibility for the correctness or completeness of this schedule in respect of items and quantities and this schedule is liable for alteration by deletions, deductions or additions at the discretion of the Client without affecting the terms of the contract.
- ii. The Client reserves the right to increase or decrease the quantum of work at site without assigning any reason. The Contractor shall carryout the works at the rates accepted.
- iii. Variations in the quantities put to tender will not be the basis for any claim or disputes. The rates agreed by the Contractor shall hold good for any amount of variation in the quantities and no claims whatsoever will be entertained on this amount. The Contractor shall carry out all works as directed by the Client at the same agreed rates.
- iv. HCSL reserves the right of accepting the whole or any part of the tender/items/quantity etc before issuing the work order and tenderer shall be bound to perform the same at his quoted rate.

1.18 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. 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.

1.19 Interpreting Specifications

- i. In interpreting the specifications, the following order of decreasing importance shall be followed:
 - a. Specification mentioned in Schedule of Quantities (Price bid)
 - b. Technical specifications and scope of work
 - c. Drawings.
 - d. General conditions of contract
- ii. Matters not covered by the specifications given in the contract as a whole shall be covered by the relevant PWD/CPWD/Indian Standard Codes/BIS/ASME. If such codes on a particular subject have not been framed, the decision of the Client shall be final.

1.20 No alterations shall be made by the tenderer in the Notice Inviting Tender, Instructions to the Contractors, agreement form, Conditions of the contract, Drawings and Specifications, and if any such alterations are made or any conditions attached, the tender is liable to be rejected.

1.21 The acceptance of a tender rests with the Authorised Representative of the Client who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all the tenders received without assigning any reason(s) whatsoever.

The authorized representative of the Client reserves the right of accepting the whole or any of the tenders received and the tenderer shall be bound to perform the same at the rates quoted.

1.22 The work shall be carried out under the direction and supervision of the Client or their representative at site. On acceptance of the tender, the Contractor shall intimate the name of his accredited representative who would be supervising the construction and would be responsible for taking instructions for carrying out the work.

1.23 The Client's decision with regard to the quality of the material and workmanship will be final and binding, any material thus rejected shall be immediately removed by the Contractor and replaced by materials as per specifications and standards.

1.24 **INTEREST FREE SECURED ADVANCE FOR CIVIL WORKS**

The contractor, on signing an indenture in the format to be specified by the Engineer in- Charge, shall be entitled to be paid during the progress of the execution of the work up to 75% of Market Value of the accepted materials or the cost of accepted materials as derived from the tendered item rate of the Contractor, whichever is less or which are in accordance with the contract and which have been brought on the site in connection therewith and are adequately stored and/or protected against damage by weather or other causes but which have not at the time of advance been incorporated in the works. Interest free secured advance up-to a maximum of 75% shall be given for non-perishable materials to the contractor on submission of claim with documentary proof of vouchers of materials procured under the scope of the contract along with proof for its ownership. Cement, Sand and different grades of hard granite broken stones will not be considered as a non-perishable item. Similarly interest free secured advance, shall not be paid on high-risk materials such as ordinary glass, petrol, diesel etc. The decision of the Engineer- in-Charge shall be final and binding on the contractor in this matter.

When materials on account of which an advance has been made under this clause are incorporated in the work, the amount of such advance shall be recovered/deducted from next payment made under any of the clause or clauses of this contract. For non-perishable items which are used for fabrication in the fabricators's site, Interest free Secured advance shall be paid against an irrevocable Bank Guarantee (BG) valid for a period up to 6 months enforceable and encashable at Kolkata, drawn from any scheduled bank operating in India for an amount equal to 75% of the Market Value of the materials or the cost of materials as derived from the tendered item rate of the Contractor, whichever is less.

1.25 **Defects Liability Period**

The contractor has to guarantee the material and workmanship for a minimum period of **ONE YEAR (12 months)** from the date of commissioning and acceptance of the same by HCSL 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 **12 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.

1.26 Delays in Commencement

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. Similarly the Contractor shall not be entitled to claim any amount from Client for delays in completion of work.

1.27 The Contractor should inspect the source of materials, their quality, quantity and availability. All materials must strictly comply with the relevant specifications.

1.28 The Contractor must co-operate and co-ordinate with other Contractors involved in other works at the site.

1.29 Period of Completion

- i. The time for completion of work is 4 months which shall be reckoned from the date of the work order. The time allowed for carrying out the work as mentioned above shall be strictly observed by the contractor. The work throughout the time period shall be proceeded with due diligence keeping in view that time being deemed to be the essence of the contract.
- ii. 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.

1.30 **Liquidated Damages**

- i. 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 5% of the value of the executed contract value.
- ii. 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.
- iii. 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.

1.31 **Payment Terms**

1.31.1 Payment terms for the project shall be as follows:-

Payment can be made on the clear RABs without corrections submitted by the contractor. HCSL shall carry out an scrutiny to check the eligibility of the RABs. Engineer has the right to reject the bill if found ineligible. 75% advance payment for eligible amount shall be made by HCSL subject to terms and conditions and Balance amount of 25% will be paid only after scrutiny and cross-checking of the bill by HCSL. Certified amount will be paid only after quality of work is certified by after scrutiny and cross-checking 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 by 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 necessary

details shall be furnished by the contractor. HCSL reserves the right for the deduction of taxes and duties as applicable from the bill or invoice.

1.31.2 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.

1.31.3 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.

1.31.4 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.

1.32 **Measurement**

- i. The Contractor or his representative shall accompany the Client or their representative and Third party in taking measurements and shall agree to the measurements taken on spot. If the Contractor fails to accompany the Client for measurements, then he shall be bound by the measurements taken by the Client.

1.33 **CHANGES**

HCSL 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 here under.

Any amendment to WORK ORDER shall be made in writing by HCSL and all other terms and conditions of WORK ORDER shall remain unchanged.

1.34 **Recovery of dues from the contractor**

HCSL 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.

1.35 **Permits and certificates**

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 HCSL 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.

- 1.36 Tender documents, Terms and conditions and Drawings should be signed and sealed in all pages by the contractor and accompanied along with the tender. In case any of the above conditions is not acceptable to the tenderer it should be specifically indicated in the tender failing which it will be presumed that all the terms and conditions are acceptable.

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.



For Hooghly Cochin Shipyard Limited

DGM (P&O)

**कमांडर पी के मीश्रा (से. नि)
Cdr. P K MISHRA (Retd.)
उप महाप्रबंधक (परिचालना एवं प्रचालन) / DGM (P & O)
हगली कोचीन शिपयार्ड लिमिटेड
HOOGHLY COCHIN SHIPYARD LIMITED**

Annexure-2

GENERAL CONDITIONS OF CONTRACT

1. Offer shall be submitted in the prescribed form to M/s Hooghly Cochin Shipyard Ltd (HCSL), Nazirgunge Works, P. O. Danesh Sk. Lane, Satyen Bose Road, Howrah - 711 109, West Bengal, at the designated tender box and has to be addressed to The DGM (P&O).
2. Place of Work/delivery: Nazirgunge Works, Hooghly Cochin Shipyard Ltd, Satyen Bose Road (BGRS Road), PO Danesh SK Lane, Howrah -711109, West Bengal.
3. 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.
4. All applicable taxes, duties, transportation and insurance etc. should be included in the rate quoted, unless specified otherwise. HCSL reserves the right for the deduction of taxes and duties as applicable from the bill or invoice.
5. Tender documents issued are not transferable. Tender documents issued/downloaded shall be submitted wholly without altering any part.
6. The bidder shall not have been debarred / black listed by HCSL or by any of the Public Sector Undertaking or Government department etc. Bidders shall produce a self-declaration in this regard as attached.
7. Bidders are instructed to carefully go through the tender documents and shall agree to HCSL 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.
8. Bidders shall quote total amount in figures and in words. Corrections and additions if any must be attested/ duly signed by the bidder. In the case of error in multiplication/addition in amount calculated, the rate quoted will be considered as correct and the amount will be calculated accordingly. Conditional rebates & discounts, incomplete/ambiguous offers are likely to be rejected.
9. Late bid will be rejected and HCSL will not be responsible for any postal delay /non-receipt of bid on any account of loss in transit.

10. 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.
11. 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.
12. HCSL 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.
13. HCSL has the right to award work, part or in full to a single party or multiple parties as deemed fit. Also, HCSL shall have the right to issue work order & supply order separately.
14. During the evaluation of tender, HCSL may seek clarifications from the bidders. Clarification if any shall be given in writing/e-mail. HCSL decision will be final and binding on the bidder.
15. 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.
16. HCSL shall without prejudice to any right or remedy is at full liberty to forfeit the said EMD 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 wilful breach of the contract, HCSL shall have full right to take suitable action against the firm together with forfeiture of Earnest Money Deposit.
17. 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.

18. The site will be available for work during office hours 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.
19. The work shall be inspected by the Officer –in – Charge /Engineer, his authorised 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.
20. **General conditions on work part:**
 - 20.1. 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.
 - 20.2. 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.
 - 20.3. 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.
 - 20.4. 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 owing 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.

- 20.5. 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-in-charge without delay and the contractor shall remove such persons from Yard premises.
- 20.6. 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 HCSL in the event of requirement. HCSL reserves the right for the deduction of ESI/PF from the bill or invoice, if required.

20.7. 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. Permanent Account Number (PAN) obtained from Income Tax Department should be mentioned in the invoice for inclusion of PAN in the TDS returns filed by HCSL.
 - c. GST ID should be mentioned.
 - d. 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.
 - e. Tax inclusive invoices will not be accepted.
 - f. All correction/rectification in the invoices should be done through Debit note/ Credit note only.
- 20.8. The work is to be arranged without affecting construction activities and to other agencies engaged in that area where works are to be carried out and shall be arranged with minimum hindrances. The work shall be carried out without damaging any of the existing structures/structures under construction/ underground pipelines or cables etc in the locality. If any damage occurs to the Yard property, by the contractor's operation shall be compensated / made good at contractor's risk and cost to the satisfaction of the Officer-in-charge of the works, failing which Yard will do the rectification work and the cost incurred will be recovered from contractor's bill or from security deposit. If contractor fails to clear the dispose/items, Yard is having the right to cleaning the premises and cost involved for the cleaning will be deducted from the contractor's bill.

- 20.9. 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.
- 20.10. 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 conform to relevant Indian Standard Specification / other statutory rules wherever necessary/ applicable.
- 20.11. 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.
- 20.12. 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.
- 20.13. All statutory requirements are to be followed by the contractor. Packing material used if any should be eco-friendly.
- 20.14. 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.
- 20.15. Necessary "Work in progress" boards shall be provided by the contractor at locations shown by the Officer –in – Charge/Engineer.
- 20.16. 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.
- 20.17. 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.
21. Bidders shall follow the Security instructions and HSE guidelines as enclosed with the Tender documents.
22. Force Majeure Condition: Should failure in performance of the contract or part there of arise from war insurrection, restraint 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, 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.

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



For Hooghly Cochin Shipyard Limited

DGM (P&O)

कमांडर पी के मीश्रा (से. नि.)
Cdr. P K MISHRA (Retd.)
आयुक्त (परिचालन एवं प्रयात्न) / DGM (P & O)
होघली कोचीन शिपयार्ड लिमिटेड
HOOGHLY COCHIN SHIPYARD LIMITED

Technical Specifications

The technical specifications should confirm to latest CPWD specifications available in the market.

1. Earth Work

General

Contractor shall carry out the survey of the site before excavation and set properly all lines and establish levels for various works such as earthwork in excavation for levelling, basement, foundations, plinth filling, roads, drains, cable trenches, pipelines, etc. It is necessary to establish permanent bench mark at such point which will not be affected by subsequent work. Such survey shall be carried out by taking accurate cross sections of the area perpendicular to establish reference/grid lines at 5 m intervals or nearer as determined by Engineer based on ground profile.

The area to be excavated/ filled shall be cleared of fences, trees, plants, logs, slumps, bush, vegetations, rubbish slush, etc., and other objectionable matter. If any roots or stumps of trees are found during excavation, they shall also be removed. The material so removed shall be disposed off as directed by Engineer. Where earth fill is intended, the area shall be stripped of all loose/soft patches, top soil containing deleterious matter/materials before fill commences.

In firm soil if the excavation is deeper than 2 m and in loose, soft or slushy soil, the width of the step shall be suitably increased or the sides sloped or shoring and strutting may be done as per the Engineer's instructions without any extra cost.

For excavation in trenches for pipes nothing extra shall be payable for the lift irrespective of the depth unless specifically mentioned otherwise in the Schedule of Quantities.

The trenches which are ready for concreting shall be got approved by the Engineer.

The excavated stacked earth shall be refilled in the trenches and sides of foundation in 200 mm layers and the balance surplus shall be first filled in layers in plinth and the remaining surplus shall be disposed off by uniform spreading within the site/outside the site as directed by the Engineer.

Adequate protective measures shall be taken by the Contractor to see that the excavation for the building foundation does not affect the adjoining structure's stability and safety. Contractor will be responsible if he has not taken precaution for the safety of the people, workers property or neighbor's property caused by his negligence during the constructional operations.

Lead

Lead for disposal of excavated material inside the site and at convenient places in the surrounding areas have been specified in the respective items of work and no other extra lead is intended.

Classification

Any earthwork will be classified under any of the following categories:

All kinds of soils

These shall include all kinds containing kankar, sand, silt, moorum and/or shingle, gravel, clay, loam peat, ash, shale, etc., which can generally be excavated by spade, pick-axe and shovel and which is not classified under ordinary rock, and hard rock defined below. This shall also include excavation in macadam and tarred roads and pavements. This shall also include rock boulders up to 200 dm³. Rubble masonry to be dismantled below ground level will also be measured under this item.

Dewatering: If water is met with in the excavations due to springs, seepage, rain or other causes, it shall be removed by suitable diversions, pumping or bailing out and the excavation kept dry whenever so required or directed by the Engineer. Care shall be taken to discharge the drained water into suitable outlets as not to cause damage to the works, crops or any other property. Due to any negligence on the part of the Contractor, if any such damage is caused, it shall be the sole responsibility of the Contractor to repair/restore to the original condition at his own cost or compensate for the damage.

2. SAND FILLING IN PLINTH

Sand Sand (Silver sand) of filling sand type shall be clean and free from dust organic and foreign matter.

Filling Sand filling shall be done in a manner similar to earth filling in plinth specified in 2.23.3.2 of CPWD specifications. Except that consolidation shall be done by flooding with water. The surface of the consolidated sand filling shall be dressed to the required level or slope and shall not be covered till the Engineer has inspected and approved the sand filling.

Measurements The length, breadth and depth of consolidated sand shall be measured with steel tape correct to the nearest cm and cubical contents worked out in cubic metres correct to two places of decimal.

Rates The rates include the cost of material and labour involved in all the operations described above

3. CONCRETE AND RCC WORKS

Applicable Codes

The following codes and standards are made a part of the Specifications. All standards, codes of practices referred to herein shall be the latest edition including all applicable official amendments and revisions.

In case of discrepancy between this specification and those referred to herein, this specification shall prevail

Materials

- 1) IS 269 : Specification for ordinary, rapid hardening and low heat Portland cement
- 2) IS 1489: Specification for Portland-pozalana cement
- 3) IS 650 : Specification for standard sand for testing of cement
- 4) IS 383: Specification for coarse and fine aggregates from natural sources for concrete
- 5) IS 2386 (Parts I to VIII) : Methods of test for aggregates for concrete
- 6) IS 516 : Methods of test for strength of concrete
- 7) IS 1199 : Methods of sampling and analysis of concrete
- 8) IS 2396 (I) IS 5640: Flakiness Index of aggregates
- 9) IS 3025: Methods of sampling and test (physical and chemical water used in industry)
- 10) IS 432(Part I & II): Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement
- 11) IS 4990: Specification for plywood for concrete shuttering work.
- 12) IS 2645: Specification for integral cement water-proofing compounds

Codes of Practice

- 1) IS 456: Code of practice for plain and reinforced concrete
- 2) IS 2751: Code of practice for welding of mild steel bars used for reinforced concrete construction
- 3) IS 2502: Code of practice for bending and fixing of bars for concrete Reinforcement
- 4) IS 3558: Code of practice for use of immersion vibrators for consolidating concrete
- 5) IS 3414: Code of practice for design and installation of joints in buildings
- 5) IS 4014 (Part I&II): Code of practice for steel tubular, scaffolding
- 6) IS 2571: Code of practice for laying in-situ - cement concrete flooring
- 7) READY MIXED CONCRETE (as per IS 4926)
- 8) IS 3696: Safety code for scaffolds and ladders

Construction Safety

- 1) IS 3696: Safety code for scaffolds and ladders

Measurement

- 1) IS 1200: Method of measurement of building works
- IS 3385: Code of practice for measurement of civil engineering works

General

The quality of materials, method and control of manufacture and transportation of all concrete work irrespective of mix, whether reinforced or otherwise shall conform to the applicable portions of this specification.

Materials

The ingredients to be used in the manufacture of standard concrete shall consist solely of standard type Portland cement, clean sand, natural coarse aggregate, clean water and admixtures.

Cement

While supplying Cement Contractor shall follow the points provided below:

- a. The cement to be used shall be Grade OPC/PPC/PSC of approved grade 43 & 53 conforming to IS: 8112-1989/IS: 1489 part I / IS 455 respectively unless otherwise mentioned. As far as possible, all the cement shall be obtained from a single source throughout the contract. Cement of different types shall not be mixed together. Different brands of cements or same brand of cement from different sources shall not be used without prior approval of the Engineer.

The cement shall be delivered at site in original sealed bags which shall be labelled with the weight, date of manufacture, brand and type. Cement received in torn or hand-stitched bags shall not be used. For volumetric batching of concrete, cement should be mixed only by box measurement. All cement should be fresh when delivered and shall be stored in an approved manner in stores built by the Contractor at his own cost. Set cement shall not be allowed to be used for any work. Site blending of the cement is not permitted. The cement shall be measured by weight.

- b. A certified report attesting to the conformance of the cement to IS specifications by the **Aggregate**
 - a. The proportions which shall be decided by conducting preliminary test shall be by volume. These proportions of cement, fine and coarse aggregates shall be maintained during subsequent concrete mixing. The supply of properly graded aggregate of uniform quality shall be maintained over the period of work, the grading of aggregates shall be controlled by obtaining the coarse aggregate in different sizes and blending them in the right proportions.

Water

Only such quantity of water shall be added to the cement and aggregates in the concrete mix as to ensure dense concrete, specified surface finish, satisfactory workability, consistent with the strength stipulated for each class of concrete as per approved mix design. The water added to the mix shall be such as not to cause segregation of material or the collection of excessive free water on the surface of the concrete.

The W/C ratio specified for use by Engineer shall be maintained. The Contractor shall determine the water content of the aggregates as frequently as directed by Engineer as the work progress and as specified in IS 2386 (Part-III) and the amount of water added at the mixer shall be adjusted as directed by Engineer so as to maintain the specified W/C ratio. To allow for the variation in volume of aggregates due to variation in their moisture content suitable adjustments in the volume of aggregates shall also be made. Concrete shall be of a consistency and workability suitable for the conditions of the job.

Admixtures

Admixtures may be used in concrete only with the approval of Engineer based upon evidence that, with the passage of time, neither the compressive strength nor its durability reduced. Calcium chloride shall not be used for accelerating setting of the cement for any concrete containing reinforcement, or embedded steel parts. When calcium chloride is permitted to be used, such as in mass concrete works, it shall be dissolved in water and added to the mixing water in an amount not to exceed 1.5% of the volume of the cement in concrete. When admixtures are used, the designed concrete mix shall be corrected accordingly. Admixtures shall be used as per manufacturer's instructions and in the manner and with the control specified by Engineer.

Curing

All concrete shall be cured by keeping it continuously damp for the period of time required for complete hydration and hardening to take place. Preference shall be given to the use of continuous sprays or ponded water continuously saturated covering of sacks, canvas, hessian, polythene sheets or other absorbent materials, or approved effective curing compounds applied with spraying equipment capable of producing a smooth, even textured coat.

Repair and replacement of unsatisfactory concrete

Immediately after the shuttering is removed, the surface of concrete shall be very carefully inspected and all defective areas called to the attention of Engineer who may permit patching of the defective areas or also reject the concrete unit either partially or entirely. Rejected concrete shall be removed and replaced by contractor at no additional expense to owner.

Finishing

The type of finish for formed concrete surface shall be as follows, unless, otherwise specified by the Engineer. For surfaces against which backfill or concrete is to be placed, no treatment is required except repairing of defective area.

For surface below grade which will receive waterproofing treatment the concrete shall be free of surface irregularities which would interfere with proper application of the waterproofing material which is specified for use.

4. Reinforcement

All reinforcing bars shall be accurately placed in the exact position shown as per the drawings, and shall be securely held in position during placing of concrete by annealed binding wire not less than 1 mm in size and conforming to IS:280, and by using stays, blocks or metal chairs, spacers, metal hangers, supporting wires or other approved devices at sufficiently close intervals. Bars will not be allowed to sag between supports nor displaced during concreting or any other operation over the work. All devices used for positioning shall be of non-corrodible material. Wooden and metal supports will not extend to the surface of concrete, except where shown on the drawings and the same shall be removed before the concreting starts. Placing bars on layers of freshly laid concrete as the work progresses for adjusting bar spacing will not be allowed. Pieces of broken stone, brick or wooden blocks shall not be used. Layers of bars shall be separated by spacer bars, pre-cast mortar blocks or other approved devices.

Reinforcement after being placed in position shall be maintained in a clear condition until completely imbedded in concrete. Special care shall be exercised to prevent any displacement of reinforcement in concrete already placed.

To protect reinforcement from corrosion, concrete cover shall be provided as indicated in the drawings. All bars protruding from concrete to which other bars are to be spliced and which are likely to be exposed for an indefinite period shall be protected by a thick coat of neat cement grout.

In the case of columns and walls, vertical bars shall be kept in normal position with timber templates having slots accurately cut in for bar position. Such templates shall be removed after the concreting has progressed up to a level just below them.

Bars crossing each other, where required, shall be secured by annealed binding wire of size not less than 1 mm and conforming to IS:280 in such a manner that they do not slip over each other at the time of fixing and concreting.

As far as possible, bars of full length shall be used. In case this is not possible, overlapping of bars shall be done as directed by HCSL Engineers. Overlapped bars should not touch each other, but be kept apart by 25 mm or 1.25 times the maximum size of the coarse aggregate in the concrete between them, whichever is greater. Where this is not feasible, overlapping bars shall be bound with annealed steel wire, not less than 1 mm thickness twisted tight. The overlaps shall be staggered for different bars and located at points along the span where shear & bending moment is maximum. Bars of less than 3.0 M length shall not be used as main reinforcement.

5. FORMWORK – SHUTTERING

All centering, formwork and temporary works shall be constructed according to drawings and specifications prepared by the Contractor and approved by HCSL Engineers. The design criteria and loading for these works shall be as per the relevant specifications, listed below:

- (a) Before placing concrete the surface of all forms shall be coated with suitable non-staining form releasing agents such as raw linseed oil so as to prevent adhesion of concrete and to facilitate removal of forms.

- (b) The form releasing agent shall cover the forms fully and evenly without excess over drip. Care shall be taken to prevent form releasing agents from getting on the surface of the construction joints and on reinforcement bars. Special care shall be taken to thoroughly cover form strips for narrow grooves, so as to prevent swelling of the forms and the consequent damage to concrete prior to or during removal of forms.
- (c) Immediately before concrete is placed, care shall be taken to see that all forms are in proper alignment and the supports and fixtures are properly secured and tightened.

Where forms for continuous surfaces are placed in successive units, the forms shall lap and fit tightly over the completed surface so as to prevent leakage of cement slurry from the fresh concrete and to maintain accurate alignment of surface.

- 1.a) Forms shall be left in place until their removal is authorized and shall then be removed with care so as to avoid injury to concrete.
- 1.b) Removal of forms shall never be started until the concrete is thoroughly set and adequately hardened such that it can carry its own weight, besides the live load which is likely to come on the work during construction. The length of time for which the forms shall remain in place shall be decided by HCSL Engineers, with reference to weather conditions, shape and position of the structure or structural member and nature and amount of dead and live loads.
- 1.c) In normal circumstances and where ordinary Portland cement is used, forms can be allowed to be struck as under:

- | | | |
|----|-------------------------------------|------------------|
| 1) | Beam sides, walls, unloaded columns | - after 24 hours |
| 2) | Slabs and arches (props left under) | - after 4 days |
| 3) | Props to slabs and arches | - after 14 days |
| 4) | Beam soffit (props left under) | - after 8 days |
| 5) | Props to beams | - after 21 days |
| 6) | Lean concrete (sides) | - after 2 days |

Note: Time shall be measured from last batch concreted in respect to the structural member under consideration.

In no case shall forms be removed until there is an assurance that removal can be accomplished without damaging the concrete surface. Heavy loads shall not be permitted till the concrete has reached its design strength. The forms shall be removed with great caution and without jerking the structure.

6. MASONRY WORK

Brick

Bricks used in works shall be bricks of specified crushing strength as described in the Schedule of Quantities. They shall have the following general properties:

They shall be sound, hard, homogenous in texture, well burnt in kiln without being verified, table moulded, deep red, cherry or copper coloured, of regular shape and size and shall have sharp and square edges and parallelled faces. The bricks shall be free from pores, chips, flaws or humps of any kind. Bricks containing unground particles and which absorb water more than 1/5th of their weight when soaked in water for twenty four hours shall be rejected. Overburnt or under burnt bricks shall be liable to rejection. These bricks shall give a clear ringing sound when struck.

Samples of bricks shall be submitted before starting the brickwork to the Engineer for approval. Bricks supplied shall conform to these approved samples. Brick sample shall be got tested as per IS:3495 by Contractor at no extra cost. Bricks rejected by Engineer shall be removed from the site of works within 24 hours.

Mortar

Mix for cement mortar shall be as specified in the respective items of work. Gauge boxes for sand shall be of such dimensions that one complete bag of cement containing 50 kgs. of cement forms one unit. The sand shall be free from clay, shale, loam, alkali, and organic matter and of sound, hard, clean and durable practices. Sand shall be approved by the engineer. If so directed by the engineer sand shall be thoroughly washed till it is free of any contamination.

For preparing cement mortar the ingredients shall first be mixed thoroughly in dry condition. Water shall then be added and mixing continued to give a uniform mix of required consistency. Cement mortar shall preferably be machine mixed, through mixing in a thorough manner may be allowed. The mortar so mixed shall be used within 30 minutes of mixing. Mortar left unused in the specified period shall be rejected.

The Contractor shall arrange for test on mortar samples if so directed by the engineer re tempering of mortar shall not be permitted.

7. PLASTERING

All joints in the face work that is to be plastered shall be raked out to depth equal to not less than the width of the joints or as directed by the Engineer. The raking shall be done taking care not to allow by chipping of masonry. In new work the raking out shall be done when the mortar in the joints is still green.

Smooth surfaces of concrete, old plaster, etc. must be suitably roughened to provide necessary bond for the plaster. All dirt, soot, oil paint or any other material that might interface with satisfactory bond shall be removed. The surface to be plastered shall be cleaned and scrubbed with fresh water and kept wet for 6 hours prior to plastering. It shall be kept damp during the progress of the work. The plastering shall be commenced unless the Engineer passes the preparatory work in writing.

In all plaster work the mortar shall be firmly applied with somewhat more than the required thickness and well pressed into the joints and on the surface and rubbed and levelled with a flat wooden rule to give required thickness. Long straight edges shall be freely used to give perfectly plane and even surface. All corners must be finished to their true angles or rounded as directed by the Engineer. The surface shall be finished to plane or curved surface as shown on the plan or directed by the Engineer, and shall present a neat appearance. The mortar shall adhere to the masonry surface intimately when set and there should be no hollow sound when struck. Cement plastering should be done in squares or strips as directed. Plastering shall be done from top downward.

Plastering to Ceiling

Projecting burms of mortar formed due to the gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brushes. In addition concrete surface shall be poke marked with a pointed tool at spacing of not more than 50 mm centre to centre, the pokes being made not less than 3 mm deep, to ensure a proper key for the plaster. The mortar shall be washed off and surface cleaned of all oil, grease etc., and well wetted before the plaster is applied.

Scaffolding

Scaffolding shall be double and shall be erected with steel sections or pipes of adequate strength so as to be safe for construction operations. The contractor shall take all measures to ensure the safety of the work and working people. Any instructions of HCSL Engineers in this respect shall also be complied with. The contractor shall be entirely responsible for any damage to property or injury to persons resulting from ill erected scaffolding, defective ladders and materials or otherwise arising out

of his default in this respect. Proper scaffolding shall be provided to allow easy approach to every part of the work. Overhead work shall not be allowed.

8. Tiles Laying:

Laying of tiles in slab flooring shall be as follows:

Before laying, the tiles shall be thoroughly wetted with clean water. Neat cement grout (pigmented to match the shade of the stone slab) of honey like consistency shall be spread on the mortar bed over as much areas could be covered with the tiles within 15 to 20 minutes. Each tile shall be gently tapped with a wooden mallet till it is firmly and properly bedded. If there is a hollow sound on gentle tapping, the tiles shall be removed and reset properly. The joints shall be as thin as possible and limited to 2 mm at the maximum. The edges of the adjoining tiles shall be in one plane. The edges shall be neatly rounded off where ever the slabs cover open edges of floor or window sills.

Laying shall start after due consideration is given to following points and approved by HCSL Engineers.

- a. Datum levels of floors in rooms, adjacent rooms, passages, etc.
- b. Slopes, if provided, the flooring should be given by adjusting thickness of mortar.
- c. Tiles in openings and doors are equally placed.
- d. Passage may be laid first to achieve evenness in doors.
- e. Tiles in rooms shall be symmetrical and equal cut tiles shall be around the edges.
- f. In case of differently coloured tiles in passages and rooms, a dividing strip shall be provided and colour changed tiles shall be provided under the shutter.
- g. In case there are any other architectural or structural features, the same shall be considered and the pattern should be adjusted accordingly.
- h. Tiles may be allowed to go about 10 mm under plaster or dado. Surplus cement slurry from the joints shall be cleaned, once the tiles are laid, . The following day the joints shall again be cleaned, washed and wire brushed.

Grouting of joints shall be carried out with coloured (pigmented cement) cement or grey cement that matches the colour of tiles. Grout shall be worked into joint. Excessive grouts shall be cleaned off.

The floor shall be kept wet for a period of 7 days No traffic shall be allowed on the bedding and bedded tiles for at least 2 days.

9. Granite Stone Flooring

Providing and laying 16 to 20 mm thick polished granite slab with edge rounding, nosing & machine polishing to edge to give high gloss finish, triple step groove if required with approved colour, make and pattern on floors, top of counter slabs, skirting, wall cladding, treads of steps, landings etc., including an under layer of cement mortar 1:4 (1 cement : 4 coarse sand) 20mm thick and cement slurry @ 3.3kg of cement per sqm, finished with flush pointing using approved joint filler of matching shade including cost and conveyance of all materials labour etc. Complete as directed by Engineer at all levels. The stone shall be of approved quality, size and uniform thickness and shall be hard, sound, dense and homogenous in texture. It shall be uniform in shade free from stains, cracks, decay and weathering. The flooring shall be cured for a minimum period of 7 days. The surface of the flooring shall be laid to levels and slopes as directed by Engineer. The tiles which are fixed in the floor adjoining the wall shall enter not less than 12 mm under the skirting or dado. The junction between the wall plaster and the floor shall be finished neatly and without waviness. The free edges shall be cut as per the pattern and shall be polished to match with flooring. Before starting the work, the contractor shall generally get samples of granite tiles polished to the satisfactory level for approval of Engineer and shall be kept in the custody of the Engineer and the tiles/slabs

supplied and used on the work shall confirm to the samples with regard to soundness, colour, shades, general texture and finishing/polishing.

Granite slabs in steps

It shall be of single piece and type/size shall be to match the sizes of the treads/risers. The edges shall be machine cut to the required shape.

10. Painting Work:

Materials

Paints of approved brand and manufacture shall be used. Only ready mixed Paint as received from the manufacturer without any admixture shall be used. If for any reason, thinning is necessary in case of ready mixed Paint, the brand of thinner recommended by the manufacturer or as instructed by the Engineer shall be used.

Approved Paints shall be brought to the site of work by the contractor in their original containers in sealed condition. The material shall be brought in at a time in adequate quantities to suffice for the whole work or at least a fortnight's work. The materials shall be kept in the joint custody of the contractor and the Engineer. The empties shall not be removed from the site of work, till the relevant item of work has been completed and permission obtained from the Engineer.

Preparation of Surface

The surface shall be thoroughly cleaned and dusted off. All rust, dirt, scales, smoke splashes, mortar droppings and grease shall be thoroughly removed before painting is started. The prepared surface shall have received the approval of the Engineer after inspection, before painting is commenced.

Application

Before pouring into smaller containers for use, the Paint shall be stirred thoroughly in its containers, when applying also, the Paint shall be continuously stirred in the smaller containers so that its consistency is kept uniform.

The paint shall be applied with a brush/roller/spray on the clean dry and smooth surface. Horizontal strokes shall be given first and vertical strokes shall be applied immediately afterwards. This entire operation will constitute one coat. The surface shall be finished as uniformly as possible leaving no brush/roller/spray marks.

The contractor shall arrange a quality inspection by the manufacture's of the paint for ascertaining the quality of the painting application.

Protective Measures

Doors, windows, floors, articles of furniture etc. and such other parts of the building not to be painted, shall be protected from being splashed upon. Splashing and droppings shall be removed by the contractor at his own cost and the surfaces cleaned. Damages if any to furniture or fittings and fixtures shall be recoverable from the contractor.

Measurements

Length and breadth shall be measured correct to a cm. and area shall be calculated in sqm correct to two places of decimals. Cornices and other such wall or ceiling features, shall be measured along the girth and included in the measurements. The number of coats of each treatment shall be stated. The item shall include removing nails, making good holes, cracks, patches etc. not exceeding 50 sq. cm. each with material similar in composition to the surface to be prepared.

Rate

The rate shall include the cost and conveyance of all materials, labour charges, scaffolding, the cost of material wastage, lead, lift etc complete.

11. ANTI TERMITE TREATMENT

General

The treatment shall create a chemical barrier /Zone and around the building during the construction : 6313 Part (II) 2001 .Treatment shall be got done only by approved specialized agencies who shall provide guarantee of minimum 10 years against re-infestation and in the event of re-infestation shall carry our further treatment free of cost.

Only permitted chemicals procured from authorized agencies shall be used.

Graduated containers shall be used for dilution of chemicals and spraying shall be done by hand operated pumps.

Adequate safety measures and protective gears shall be used while storing & handling the chemicals.

Treatment should start when foundation trenches and pits are ready to take mass concrete foundations. Treatment shall not be carried out during rain or when the soil is wet.

The treated soil barrier shall not be disturbed. If for any reason the barriers are disturbed immediate steps shall be taken to restore continuity and completeness of the barrier system.

The applicator shall be done by fully trained and approved by the manufacturer. The manufacturer should ensure 10 year warranty for the entire system to the client. All application team must obtain the training certificate from the manufacturer and also certify that the installation team is qualified for the anti-termite work. Manufacturer should ensure the performance guarantee of the system by submitting a BG for 10% value of total work, for a period of 5 years as per special condition.

Treatment of top surface of plinth filling

The top surface of the consolidated earth within plinth wall shall be treated with chemical emulsion at the rate of 5 liters per square meter of the surface before the sand-bed or sub - grade is laid. If the filled earth has been well rammed and surface does not allow the emulsion to seep through, holes up 50 to 75 mm deep at 150 mm centers both ways may be made with 12 mm diameter mild steel rod on the surface to When pipes, wastes and conduits enter the soil inside the area of the foundation, the soil with the chemical emulsion.

Precautions to be taken

- Treatment should not be carried out when it is raining or when the soil is saturated with sub-soil water. The chemical shall be applied to soil when the soil is dry and absorbent. Immediate steps to be taken by the customer to cover the treated layer by laying soiling /PCC etc.
- Once formed treated soil barriers zone must not be disturbed. In case treated soil is disturbed, immediately steps shall be taken to restore the continuity and completeness of barrier system at an additional cost to the customer.
- Infants and aged or any person having breathing problem or sensitive to chemicals should avoid being present in the premises during the treatment.
- Do not touch or let pets touch treated surface.

Measurement

Measurement for anti-termite treatment for building shall be of the area of plinth at ground level correct up to 0.01 square meter. Unless itemized separately, the rate shall include additional treatments for mound, expansion joint etc.

Rate

The rates quoted shall include cost of all materials, spray pumps, tools tackles and other accessories, all labour, storage of insecticides as approved by competent authorities license if required etc. complete.

Placing of concrete

Concrete shall be conveyed and placed in final position in such a manner as to prevent segregate and loss of any of the gradients. Re-handling should be avoided. The maximum height of drop shall not exceed 1.5m and the method of placing concrete shall be approved by the Engineer. The internal adding water to the drag in gradient and completion of placing of concrete shall not exceed 30 minutes and to concrete shall not be disturbed once the setting of cement has commenced. The rate of placement of concrete shall be such that no cold joint is framed and fresh concrete is placed always against concrete is still plastic and workable.

12. JOINERY-GENERAL:

General.

Joinery shall be carried out strictly in accordance with the drawings where joints are not specifically indicated recognized forms of joints shall be used.

Where no dimensions are specified or shown on drawings, the contractor shall space fixing battens, fillets, ground studs and the like, in accordance with the recommendation of the manufacturer.

ALUMINIUM SECTIONS

Aluminium sections used for fixed, partitions, frame work etc. shall be suitable for use to meet architectural designs to relevant works and shall be subject to approval of the Engineer for technical, structural, functional and visual considerations. The aluminium extruded sections shall conform to the relevant codes specified in the schedule of quantities.

Before proceeding with any fabrication work, the contractor shall prepare and submit, complete fabrication and installation drawings for each type of partition for the approval of the Engineer. If the sections are varied, the contractor shall obtain prior approval of Engineer and nothing extra shall be paid on this account.

Frame Work

First of all the shop drawings for partitions shall be prepared by using suitable sections based on architectural drawings, adequate to meet the requirement/specifications and by taking into consideration varying profiles of aluminium sections being extruded by approved manufacturers. The shop drawings shall also show the details of fittings and joints. Before start of the work, all the shop drawings shall be got approved from the Engineer. Actual measurement of openings left at site for glazing etc. shall be taken.

The frames shall be truly rectangular and flat with regular shape corners fabricated to true right angles. The frames shall be fabricated out of section which have been cut to length, mitered and jointed mechanically using appropriate machines. Mitered joints shall be corner crimped or fixed with self tapping stainless steel screws using extruded aluminium cleats of required length and profile.

Contractor should make provision for fixing all electrical, networking boxes in the paneling framework, cutting and making good the wall/floor etc wherever required at required heights/levels as directed by Engineer at all levels.

Fixing of Frames

The holes in concrete/masonry/wood/any other members for fixing anchor bolts/fasteners/screws shall be drilled with an appropriate electric drill. The framework shall be checked for line, level and plumb before final fixing is done.

Where aluminium comes into contact with stone masonry, brick work, concrete, plaster or dissimilar metal, it shall be coated with an approved insulation lacquer, paint or plastic tape to ensure that electrochemical corrosion is avoided. Insulation material shall be trimmed off to a clean flush line on completion.

Measurement

All aluminium sections shall be measured in kilogram. Aluminium sections fixed in place shall be measured in running meter along the outer periphery of composite section correct to a millimeter and then converted to kilogram based on the standard weight of sections. The weight calculated on the basis of actual average (average of five samples) weight of composite section in kilogram correct to the second place of decimal shall be taken for payment. The weight of cleat shall be added for payment. Neither any deduction nor anything extra shall be paid for skew cuts.

Rate

The rate shall include the cost of all the materials, labours involved in all the operations, making provisions for electrical, networking works, cutting and making good the wall/floor etc wherever required at required heights/levels as described in the specification & schedule of quantities.

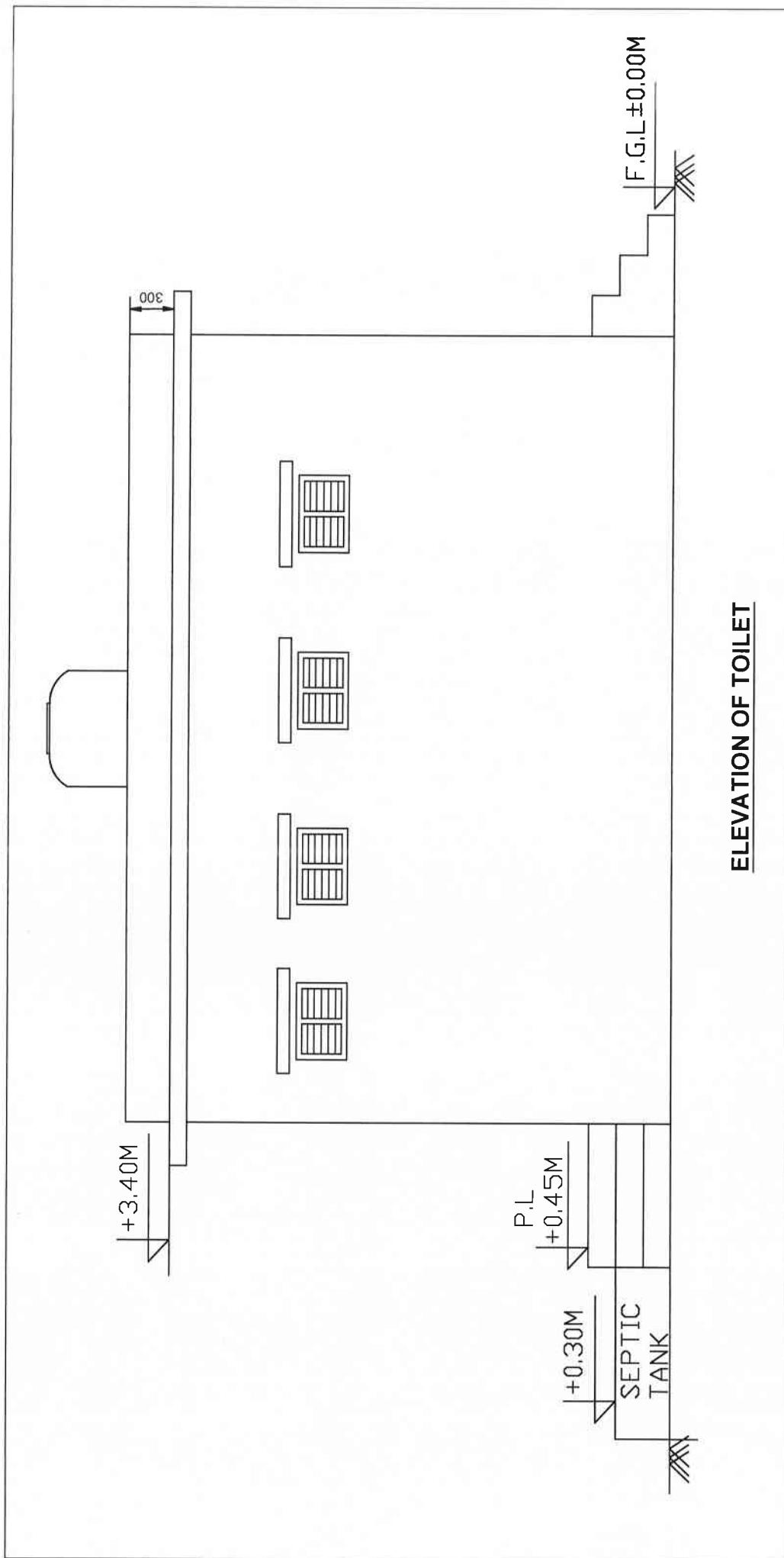
13. Soak pit

The earth excavation shall be carrying out to the exact dimensions as shown in the drawing. The soak pit shall be constructed of honey-comb dry brick work of 250 mm thick in cement mortar 1:6, RCC 1:2:4 precast or cast-in-situ slabs 125 mm thick for top cover with reinforcement, S.W. drain pipe 100 mm diameter, 1.8 m long etc., all complete.

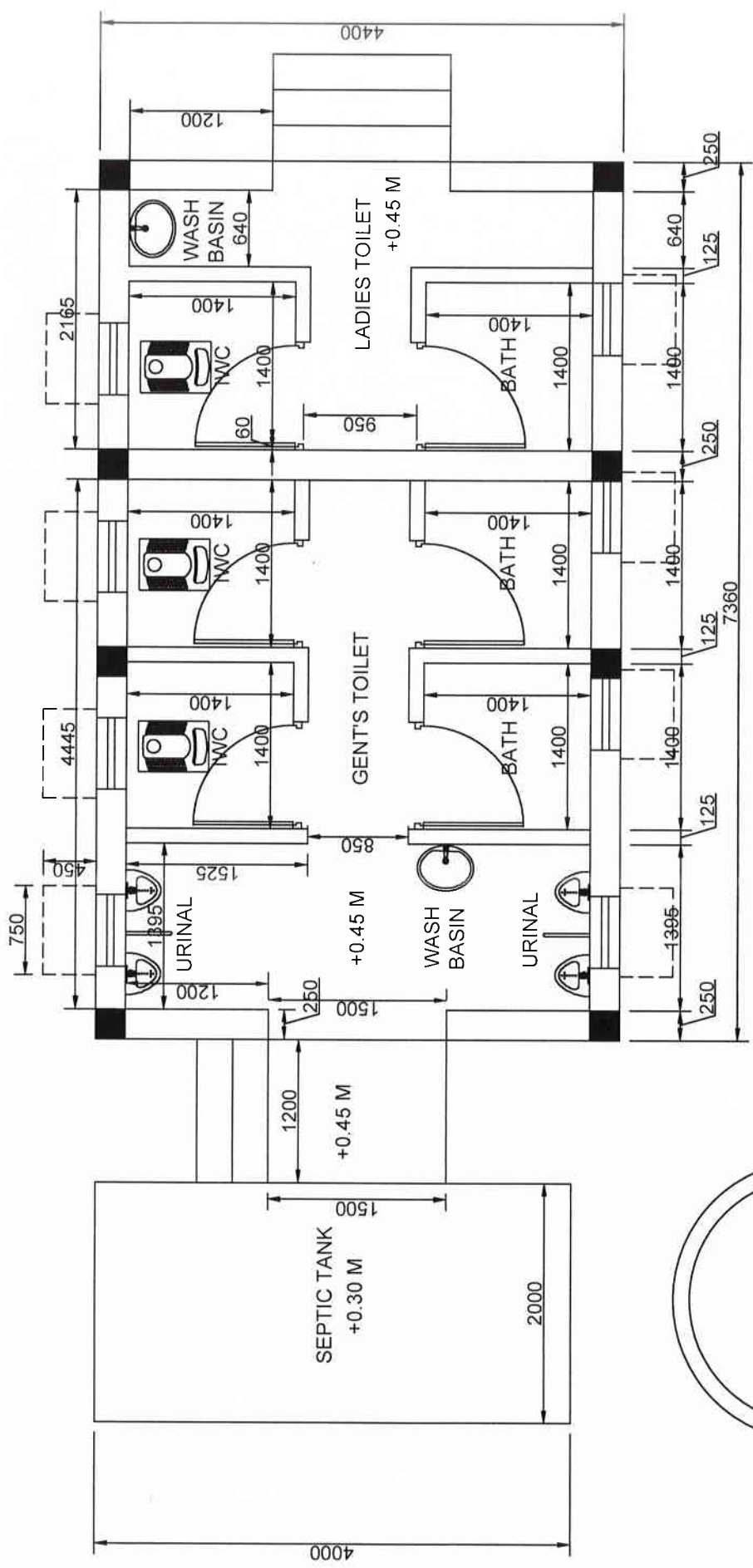
14. LIST OF APPROVED MAKE

SI No	Material	Brands
1.	Cement	L&T, ACC, Aditya, Ambuja, Ultratech, Lafarge, J&K, Dalmiya, Star,JSW Cement etc. or any other approved brand.
2.	White Cement	Birla, J.K, Grasim
3.	Steel (TMT)	Tata, Vizag, SAIL, TISCO, IISCO, RINL , Jindal Steel and Power Ltd, JSW Steel Ltd or equivalent as approved
4.	Ceramic Tiles	Kajaria, Regency, Nitco, RAK, Mirage Ceramics Pvt. Ltd, Naveen, Orient Bell, Swastik Ceracon Ltd. or equivalent as approved
5.	Water proofing compound	Roffe, Fosroc, Sika, Pidilite, Structural Waterproofing Co.Pvt. Ltd, BASF , Eurobuild Construction Chemicals & Coating, Bostik, MAPEI, CICO Technologies Ltd., Sunanda Speciality Coatings Pvt. Ltd, Kunal Conchem Private Ltd., The Structural Waterproofing co. Pvt.Ltd. / CHRYSO, MYK Schomburg or equivalent as approved.
6.	Integrated water proofing	India water proofing, Sika, Pidilite, BASF, Fosroc, Euro Build, Bostik, MAPEI, The Structural Waterproofing co. Pvt.Ltd. / CHRYSO or equivalent
7.	Paint & Primer, Distemper	ICI (Akzonobel), Berger, Asian, Jotun or equivalent as approved
8.	Primer	Altek, Berger, Asian, ICI (Akzonobel) , Jotun or equivalent as approved
9.	Mortice locks, locks, latch	Godrej, Dorset Kaba Security Systems Pvt. Ltd., Magnum, Ozone Overseas Pvt. Ltd, Dorma or equivalent as approved
10.	Admixtures	FOSROC, Polygon, STP, BASF, CERACHEM, Don Chemicals, Sika, Eurobuild Construction Chemicals & Coating, MAPEI, Bostik, MYK Schomburg, Sunanda Speciality Coatings Pvt. Ltd, Kunal Conchem Private Ltd., The Structural Waterproofing co. Pvt.Ltd. / CHRYSO or equivalent as approved
11.	Valves	Audco/Leader/ Advance/ Crawley/Divine
12.	PVC/UPVC/CPVC pipes	Astral/Ajay/Ashirvad

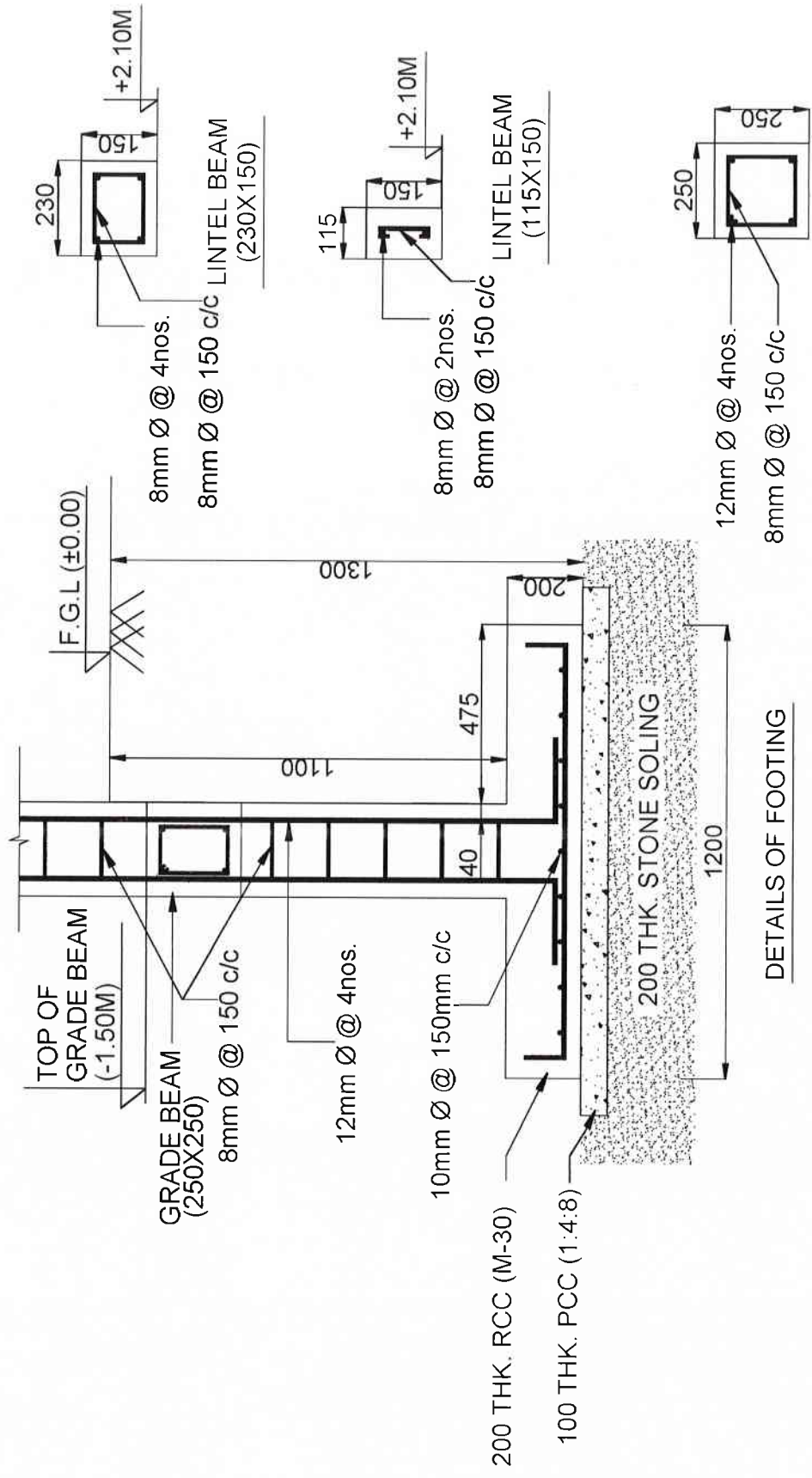
13.	Sanitary Fixtures	Duravit, Kohler, Queo, Artize, Jaquar, Toto, Hindware, Grohe, Roca
14.	Plumbing Fittings	Kohler, Jaquar, Artize, Toto, Grohe



ELEVATION OF TOILET

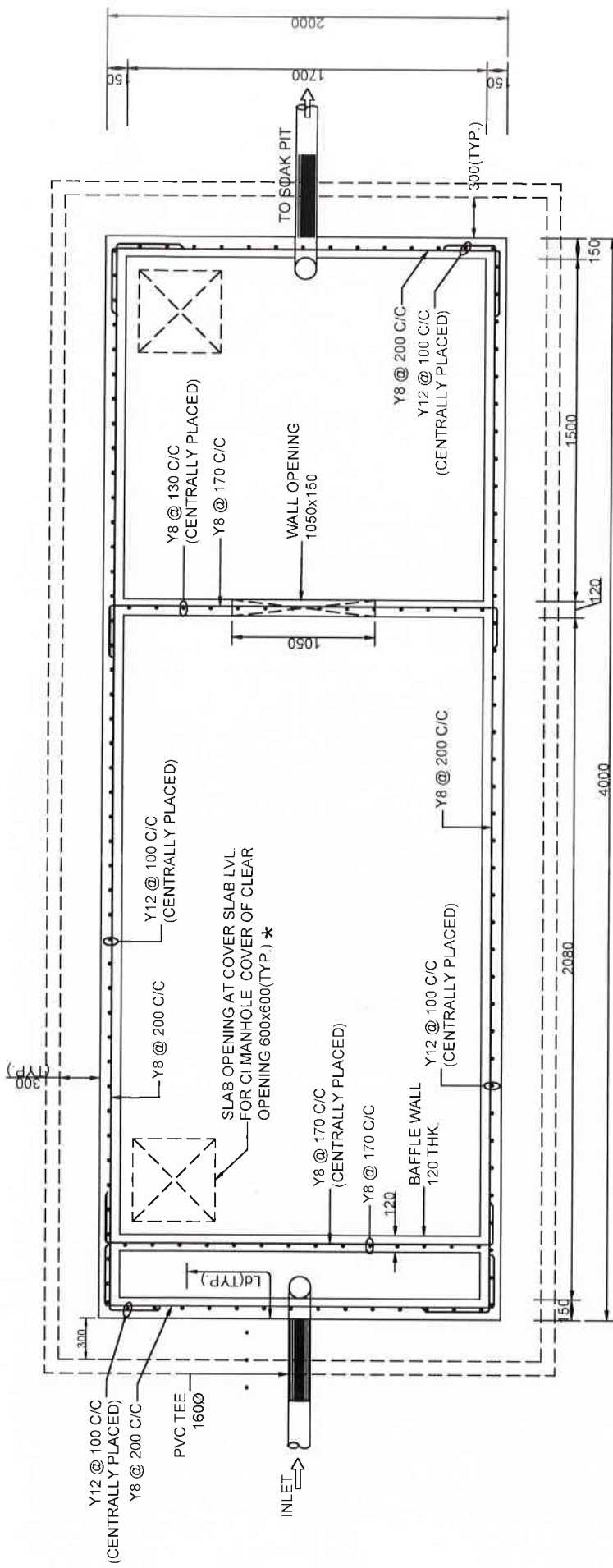


TOILET PLAN

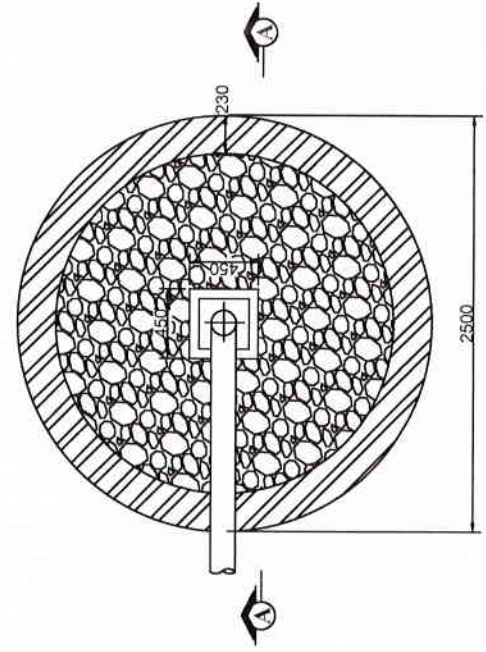


DETAILS OF FOOTING

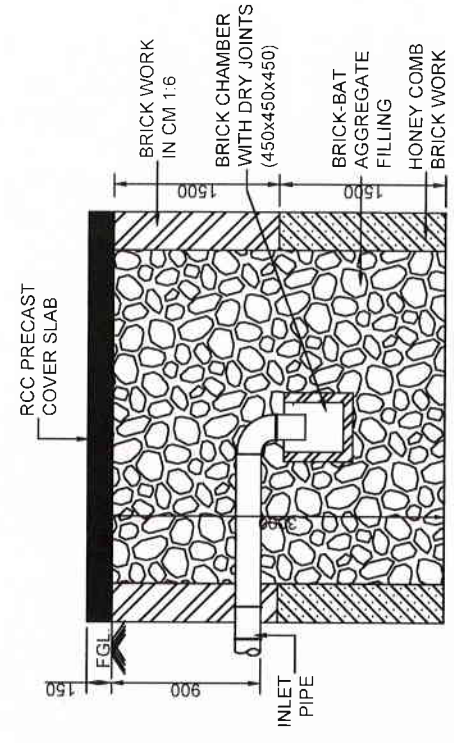
COLUMN / WALL BEAM
GRADE BEAM



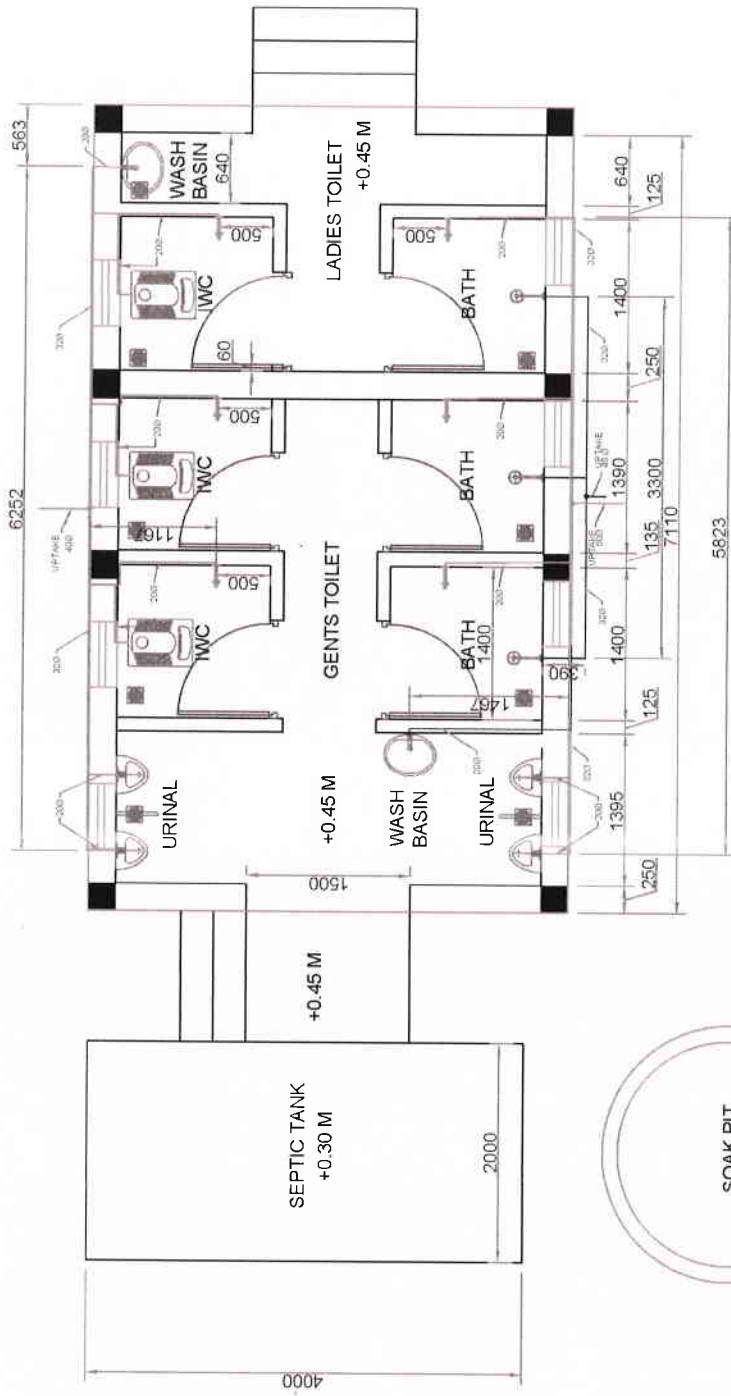
SEPTIC TANK-PLAN



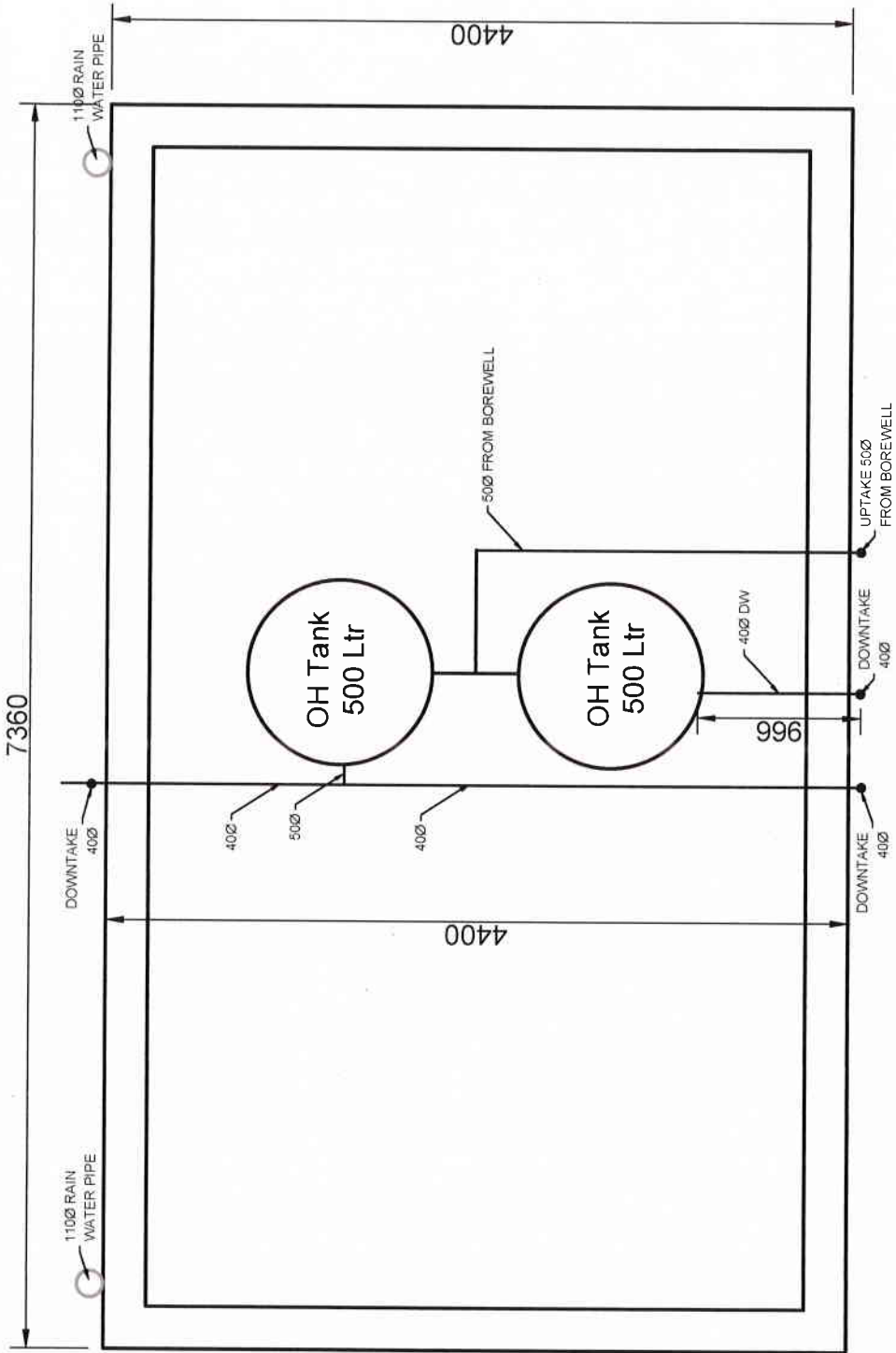
PLAN - SOAK PIT



SECTION A-A



TOILET - WATER SUPPLY LAYOUT PLAN



TOILET - WATER SUPPLY
LAYOUT PLAN- ROOF

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

Bid's Reference No. & Date:

Bidder's Name & Address:

Person to be contacted:

Designation:

Telephone No.: Fax No.: Email:

1. We do hereby declare that we have not been debarred/black listed by HCSL or by any of the Public Sector Undertaking or Government department etc.
2. If HCSL finds that, we have been blacklisted/debarred by any of the Public Sector Undertaking or Government department, and then HCSL can reject the offer or terminate the contract at any point of time. In such case, we are aware that, EMD, security deposit, performance guarantee etc will be forfeited by HCSL. Further we are confirming herewith that, any loss that has happened to HCSL due to this will be compensated by us.

For and on behalf of the firm

(Firms Name & Address)

(Signature of Authorized Signatory)
Name:

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)

To
Chief Executive Officer
Administrative Building, HCSL Premises,
Satyen Bose Road, P.O.- Danesh Shaikh Lane,
Nazirgunge, Howrah, West Bengal 711109.

Dear Sir,

We _____
_____ do hereby
confirm that Mr./Ms. _____ (Name and Address) is /are
authorized to represent us to bid, negotiate and conclude the agreement on our behalf
with you against Tender No. _____

We confirm that we shall be bound by all and whatsoever our said agents shall commit.

Yours faithfully,

Signature:

Name & Designation:

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

**BANK GUARANTEE IN LIEU OF PERFORMANCE SECURITY /WARRANTY/ SECURED ADVANCE
GUARANTEE To HOOGHLY COCHIN SHIPYARD LTD , Satyen Bose Road, Danesh Sk Lane (PO),
Nazirgunge, Howrah, West Bengal, PIN -711109**

WEST BENGAL, INDIA. WHERE AS (Name & Address of Supplier) (herein after called "the Supplier") has undertaken, in pursuance of Contract..... No.....Dated:.....to execute (Name of Contract and brief description of works) (hereinafter called "the Contract"). AND WHEREAS it has been stipulated by HOOGHLYCOCHIN SHIPYARD LTD (The Buyer -hereinafter called "HCSL") in the said contract that the Supplier shall furnish HCSL with a Bank Guarantee for the sum specified therein as security for compliance with the Supplier's obligations in accordance with the Contract. AND WHEREAS we have agreed to give the Supplier such a Bank Guarantee. NOW THEREFORE we (Name of the Bank) having its Head Office at.....(Address of Head Office) and acting through its branch office at.....(Address of the executing branch) (hereinafter called "the Bank") hereby affirm that we are the Guarantor and responsible to HCSL, on behalf of the Supplier up to a total of (amount of Guarantee).....in words). We, the bank, hereby irrevocably undertake to pay you any amount not exceeding in total the Guarantee Amount upon receipt by us of your demand in writing accompanied by the following documents: 1. Your signed statement certifying that the Supplier is in breach of his obligation(s) under the Contract and the respect in which the Supplier is in breach. 2. Your signed statement certifying that the Supplier has been given a prior written notice by email from you to make good the aforesaid breach and that the Supplier still failed to fulfil the Contract within 30 days of such notice. A copy of such notice given by email to the Supplier shall be attached to the demand for payment. Any demand for payment should contain your authorized signatures which must be authorized by your bankers or by a notary public. We, the Bank, further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between HCSL and the Supplier shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification. We, the Bank, further agree that any change in the constitution of the said contractor or the said bank shall not discharge our liability hereunder.

Notwithstanding anything contained herein:

1. Our liability under this Bank Guarantee shall not exceed(.....only).

2. This Bank Guarantee shall be valid up to (date) and

3. We are liable to pay the guaranteed amount or any part thereof under this bank guarantee only and only if HCSL serve upon us a written claim or demand on or before(validity date)

Any demand for payment under this guarantee must be received by us at this office during working hours on or before the validity date. Should we receive no claim from you by the validity date, our liability to you will cease and the guarantee will definitely become null and void whether returned to us or not.

Yours truly, Signature and seal of the

Guarantor:

Name of Bank:.....

Address:

Date:.....

[1] An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract and denominated in respective Dollars / Indian Rupees/Other Currency.

(Please enclose a cancelled un-signed cheque leaf to enable us to verify the details mentioned above)

We hereby declare that the particulars given above are correct and complete. If the transaction is delayed or lost because of incomplete or incorrect information, we would not hold the company responsible.

(.....
.....)

**Signature of
Employee**

Bank Certificate

We certify that _____ has an Account
No. _____ with us and we confirm that the details given
above are correct as per our records.

Date:

Place:

(.....
...)
Authorized official of
Bank

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.

DRAFT CONTRACT AGREEMENT

THIS AGREEMENT MADE ON xx xxxx, 2021 BETWEEN THE DEPUTY GENERAL MANAGER – PROJECT & OPERATION (DGM (P&O), HOOGLY COCHIN SHIPYARD LIMITED, Administrative Building, HCSL Premises, Satyen Bose Road, P.O.- Danesh Shaikh Lane, Nazirgunge, Howrah, West Bengal 711109. (hereinafter called the “Engineer-in charge”) which expression shall, unless excluded by or repugnant to the context, be deemed to include their successors in office on one part of and M/S. (hereinafter called “CONTRACTOR”) on the other part. WHEREAS THE ENGINEER-IN-CHARGE is desirous that certain work should be done viz. “ELV Works For Hooghly Cochin Shipyard Limited, Kolkata” and had accepted the tender by the Contractor for the construction, completion & guarantee of such work, NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this agreement words & expression shall have the same meaning as respectively assigned to them in the General, Special conditions of contract hereinafter referred to.
2. The following documents shall be deemed to form part and be read and construed as part of this agreement viz.
 - a) The said tender including all corrigenda and amendments.
 - b) The conditions of contract (General & Special).
 - c) The tender schedule.
 - d) All letters and e-mails from contractor
 - e) All letters and e-mails by HCSL.
 - f) HCSL Work Order
3. In consideration of the payment to be made by the DGM (P&O), HCSL to the contractor (hereinafter called the contractor) hereby covenants with the DGM (P&O), HCSL to construct, complete and guarantee the work in conformity in all respects, with the provisions of contract.
4. The DGM (P&O), HCSL hereby covenants to pay the contractor the contract price, in consideration of the construction, completion & guarantee of the work at the time and in the manner prescribed by the contract.

5. In witness whereof the parties hereto have caused their respective common seals to be hereunto affixed (or have hereunto set their respective hand & seals) the day and year first above written.

For Hooghly Cochin Shipyard Limited,

In the presence of: -

1.

2.

For M/s.....

In the presence of: -

1.

2.

Price BID

PRICE BID FOR CONSTRUCTION OF PUBLIC TOILET UNDER CSR AT NAZIRGUNGE

Sl.No	Description Of Items	Unit	Quantity	Rate (Rs.)	Amount (Rs)
(SH : -1.0 - EARTHWORK)					
1	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 upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge including levelling and dressing of the earth within free lead.	Cum			
	Total		140.20		
2	Extra for every additional lift of 1.5 m or part thereof in excavation items / banking excavated or stacked materials as directed by the Engineer including levelling and dressing of the earth within free lead.	Cum			
	Total		29.10		
3	Supply in sand filling in plinth or areas with silver sand (filling sand) underfloors, including watering, ramming, consolidating and dressing complete, cost and conveyance of all materials, labour charges, lead, lift etc complete at all levels as directed by the Engineer.	Cum			
	Total		120.90		
4	Providing and laying 200 mm thick Soling layer (270mm thick loose layer compacted to 200mm thickness) with soling stone of size 150 to 75 mm brokenstone and blinding materials(moorum), including hand packing and wedging them tightly so that the whole is formed as a solid mass, spreading blinding material in 12mm thick layers and sweeping the same to fill the voids,watering profusely and consolidating with hand rammer/ plate vibrator etc complete as per the direction of Engineer.	Cum			
	Total		7.80		
(SH: - 2.0 - CONCRETE WORK)					

5	Providing and laying cement concrete of specific grade properly mixed and consolidated with hand rammers in land or liquid mud including pumping out water and removing slush etc as required including cost and conveyance of all materials, labour, curing, lead, lift, etc. complete and including the cost of centering, shuttering and finishing for all work up to plinth level as directed by Engineer .	Cum			
	1:4:8 (1 Cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size)				
	Total		8.10		
6	Providing and laying damp-proof course 50mm thick with cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) including mixing water proofing material proportion recommended by manufacturer, cost and conveyance of all materials, labour charges, lead, lift etc complete at all levels as directed by the Engineer.	Sqm			
	Brickwork at plinth level				
	Total		7.30		
	Providing and applying a coat of residual petroleum bitumen of grade VG 10 of approved quality using 1.7kg per square metre on damp-proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil including the cost and conveyance of all materials, labour charges, lead, lift etc complete at all levels as directed by the engineer.	Sqm			
	Brickwork at plinth level				
	Total		7.30		
(SH: - 3.0 - R.C.C. WORK)					

7	Providing and laying in position machine batched, machine mixed and machine vibrated, design mix cement concrete of M-30 grade conforming to IS456 or IS 10262 for reinforced cement concrete structural elements such as for foundations, footings, bases of columns, plinth beams, vertical walls and for precast cover etc, using coarses and conforming to IS 383 and 20 mm nominal size graded hard granite broken stones, inland or liquid mud, including pump in gout water and removing slush etc including the cost of centering, shuttering, finishing, admixtures (as per IS 9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability but excluding the cost of reinforcement as per direction of Engineer. All work upto plinth level.	Cum			
Total			13.90		
8	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of M-30 grade conforming to IS 456 or IS 10262 for reinforced cement concrete structural elements such as lintel, beam, slab (including waterproofing compound wherever required), columns, vertical wall, sunshdes, staircases, fins, louvers, post, stuts, landings, balconies, access platform, arches, domes, vaults etc, using coarse sand conforming to IS 383 and 20 mm nominal size graded hard granite broken stones, including centering and shuttering, strutting, propping etc. and removal of formwork, admixtures (as per IS 9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability, but excluding the cost of reinforcement as per direction of Engineer	Cum			
All work above plinth level upto floor 2 level .					
Total			8.50		
9	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg			
Total			2740.00		
(SH: - 4.0 - MASONRY WORK)					

10	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: in: CM 1:6 (1 cement : 6 coarse sand) etc including scaffolding, raking out of joints,curing, including in land or liquid mud and cost of pumping or bailing out water and removing slush etc,cost and conveyance of all materials, labour, lead, lift, etc. complete for all types of masonry works as directed by Engineer.	Cum			
	Total		4.43		
11	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor 2 level in all shapes and sizes in : in: CM 1:6 (1 cement : 6 coarse sand) etc including scaffolding, raking out of joints,curing, cost and conveyance of all materials,labour, lead, lift, etc. complete for all types of masonry works as directed by Engineer.	Cum			
	Total		16.29		
12	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor 2 level. in : CM 1:6 (1 cement : 6 coarse sand) including cost of scaffolding complete including scaffolding, raking out of joints, curing, cost and conveyance of all materials, lead,lift, etc.complete including providing 2 Nos. of 8 mm dia bars as reinforcement at every third layer wherever specified	Sqm			
	Total		46.10		
13	Extra for providing and placing in position 2 Nos. 6 mm dia M.S. bars at every third course of single block masonry at all levels including cost and conveyance of MS bars etc complete as directed by Engineer-in-Charge	Sqm			
	Total		41.06		
(SH: - 5.0 - JOINERY WORKS)					

14	Providing and fixing coloured powder coated aluminium work for doors ,windows& partitions with extruded built up standard tubular sections/appropriate Z sections & other sections of approved make conforming to IS:733 & IS:1285 fixed with rawl plugs & screws or with fixing clips including necessary filling up of gaps at junctions,at top,bottom & sides with required PVC/neoprene felt etc.Aluminium sections shall be smooth,rust free,straight,mitred & jointed mechanically where ever required including cleat angle,aluminium snap beading for glazing/panelling,cp brass/stainless steel screws,removing the stickers clearly all complete as per architectutral drawings & directions of Engineer at all levels.(glazing & panelling to be paid seperately).Minimum thickness of powder coating for powder coated Aluminium shall be 50 micron	Kg			
	AL. Ventilator (Glass Louverd)				
	Total		26.46		
15	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer at all levels	Sqm			
	with pin headed glass panes of 4.mm thickness				
	Total		1.68		
16	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness. The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat. Door frame laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame.				
	Toilet door	Mtr.			
	Total		29.70		

17	30 mm thick Fiberglass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge.				
	Toilet door	Sqm			
	Total		8.20		
18	Providing and fixing ISI marked oxidised M.S. door latches conforming to IS:5930 with screws etc. complete :				
	250x20x6 mm	No			
	Total		6.00		
19	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :				
	75 mm				
	Toilet door	No			
	Total		12.00		
20	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete :				
	75x47x1.80 mm	No			
	Total		18.00		
21	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
	200 x 10 mm	No	6.00		
22	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	Sqm			
	Total		6.50		
	(SH: - 6.0 - FINISHING WORK)				

23	6 mm cement plaster to ceiling of mix 1:3 (1 Cement : 3 fine sand) including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer at all levels.	Sqm			
	Total		26.50		
24	12mm cement plaster of mix 1:4 (1 cement : 4 fine sand) including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer at all levels.	Sqm			
	Total		163.10		
25	15mm cement plaster of mix 1:4 (1 cement : 4 fine sand) including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer at all levels.	Sqm			
	Total		132.70		
	Anti skid floor tiles				
26	Providing and laying dark coloured Antiskid Ceramic floor tiles 300x300x7 mm of 1st quality conforming to IS:15622 of approved make, shade, and pattern laid on 20 mm thick cement mortar 1:4 (1cement:4coarsesand) and jointed with grey cement slurry @ 3.3 kg/sqm including pointing the joints with white cement and matching pigment etc. including cost and conveyance of all materials, labour charges, lead, lift etc, complete as directed by the Engineer at all levels.(The purchase price considered for ceramic tile is Rs.450/sqm excluding GST).	Sqm			
	Total		26.00		
	Ceramic Wall tiles: Light colour				
27	Providing and fixing 1st quality ceramic glazed light colour wall tiles conforming to IS:15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottlegreen, black of any size as approved by Engineer in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1cement:3coarse sand) and jointing with grey cement slurry @3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade, nosing the edges, including cost and conveyance of all materials, labour charges, lead, lift etc, complete as directed by the Engineer at all levels (The purchase price considered for ceramic tile is Rs.210/sqm excluding GST).	Sqm			
	Total		71.90		

	Ceramic Wall tiles: Dark colour				
28	Providing and fixing 1st quality ceramic glazed dark colour wall tiles conforming to IS:15622 (thickness to be specified by the manufacture of approved make in all colours, shades except burgundy, bottlegreen, black of any size as approved by Engineer-in-charge in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1cement : 3 coarse sand) and jointing with grey cement slurry @3.3 kg per sqm including pointing in white cement mixed with pigment of matching shade, nosing the edges, including cost and conveyance of all materials, labour charges, lead, lift etc, complete as directed by the Engineer at all levels.(The purchase price considered for ceramic tile is Rs.450/sqm excluding GST).	Sqm			
	Total		49.10		
	Granite				
29	Providing and laying 16 to 20 mm thick polished granite slab with edge rounding, nosing & machine polishing to edge to give high gloss finish, triple step groove if required with approved colour, make and pattern on floors, top of counter slabs, skirting, wall cladding, treads of steps, landings etc., including an under layer of cement mortar 1:4 (1cement : 4 coarse sand) 20 mm thick and cement slurry @ 3.3 kg of cement per sqm, finished with flush pointing using approved joint filler of matching shade including cost and conveyance of all materials labour etc. complete as directed by Engineer at all levels. s (The purchase price considered for granite slab is Rs.2690/sqm excluding GST)	Sqm			
	Total		5.40		
30	15mm cement plaster of mix, 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement 2 kg/sqm including mixing water proofing material proportion recommended by manufacturer over roof,shade,wall,base slab,tank etc at all heights including cost and conveyance of all materials, labour charges, scaffolding, sundries etc complete as directed by the Engineer at all levels.	Sqm			
	Total		42.50		

31	Applying one coat of alkaline resistant cement primer of approved brand and manufacture on wall surface including cost and conveyance of all materials, labour charges, lead, lift, scaffolding, sundries etc complete as directed by Engineer at all levels.	Sqm			
	Total		52.00		
32	Finishing walls with acrylic smooth exterior paint for new work (Two or more coat applied @1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20kg/ 10sqm including cost and conveyance of all materials, labour charges, scaffol	Sqm			
	Total		98.10		
33	Painting the inside walls with ready mix plastic emulsion premium quality paint of approved quality two or more coats to smooth even finish on ceiling and walls including cost and conveyance of all materials to site, labour charges, hire charges for scaffolding, etc as directed by Engineer at all levels	Sqm			
	Total		52.00		
(SH: - 7.0 - MISCELLANEOUS WORKS)					
34	Supplying, diluting and injecting chemical emulsion for PRE- CONSTRUCTIONAL anti-termite treatment: Treatment of soil using chemical emulsion by drilling 12 mm diameter holes upto 300mm depth at 150 mm center to center: With Imidacloprid 30.5% SC at 2.1 ml per litre of water as per IS 16131. The rate includes preparation of surface, treatment, cost and conveyance of all materials including chemical emulsion, labour charges,lead,lift etc complete as per manufacturer's specification and as directed by the Engineer. The above work shall be carriedout by an agency having sufficient experience and should ensure a service warranty of 10 years. Only skilled and experienced persons shall be employed for this purpose.	Sqm			
	Total		34.00		
	CPCV pipe exposed on wall				

35	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				
	50 mm nominal dia Pipes	Mtr.	18.40		
	40 mm nominal dia Pipes	Mtr.	15.30		
	32 mm nominal dia Pipes	Mtr.	20.40		
36	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc				
	20 mm nominal dia Pipes				
	Total	Mtr.	16.30		
	Gate Valve				
37	Providing and fixing gun metal gate valve with C.I. Wheel of approved quality (screwed end) including cost and conveyance of all materials, labour charges, sundries etc complete as directed by the Engineer at all levels	No			
	50mm dia	No	3.00		
	40mm dia	No	3.00		
	32mm dia	No	5.00		
	20mm dia	No	6.00		
	SANITARY PIPING WORKS				

38	Supplying, laying, jointing, testing and commissioning of hard PVC pipes with PVC specials such as tees, bends, door bend, door tee, elbows, unions, etc. with clamps including earth work, refilling, ,testing the lines rectifying any leakages or defects,etc. complete for soil, waste, rain water, drains, vent pipe, etc. concealed or open at all levels including cost and conveyance of all materials, labour charges, sundries etc complete for external works as directed by the Engineer				
	160mm OD(6 kg/cm2)	Mtr.	15.30		
	110mm OD(6 kg/cm2)	Mtr.	51.00		
	75mm OD(6 kg/cm2)	Mtr.	12.20		
	SANITARY INSTALLATION				
	Urinal				
39	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
	One urinal basin with 5 litre white P.V.C. automatic flushing cistern	No			
	Total		4.00		
	IWC				
40	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:				
	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	No			
	Total		3.00		
	Wash basin + pillar cock				

41	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	No			
	Total			2.00	
	CP brass bib cock				
42	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931				
	15 mm nominal bore	No			
	Total			6.00	
	Mirror				
43	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :	Sqm			
	Rectangular shape 453x357 mm			0.30	
	SS floor grating				
44	Providing and fixing SS floor trap of 110 mm outer dia including SS cockroach free floor grating with cup, PVC multitrapp etc. complete, testing and commissioning to the satisfaction of Engineer at all levels. The rate is including cost and conveyance of all materials, labour charges, lead, lift, cutting and making good the walls, floors, slab set complete as directed by the Engineer at all levels	No			
	Total			10.00	
	Shower				
45	Providing and fixing CP brass over head shower, shower arm, control valve etc including cost and conveyance of all materials, labour charges, lead, lift, necessary wall cutting/ chasing and making good the walls, floor, slab etc complete, testing and commissioning to the satisfaction of Engineer at all levels..(The purchase price(exclusive of all taxes) of CP brass Over head shower Rs.1050/- ,shower arm is Rs390/- , CP brass control valve is Rs960/-)	No			
	Total			3.00	
	Towel Rail				

46	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.				
	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.	No	6.00		
	stop cock				
47	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931				
	15 mm nominal bore	No			
	Total		12.00		
	Soap Dish				
48	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms	No			
	Total		8.00		
49	Making soak pit 2.5 m diameter 3.0 metre deep (including cutting and filling of earth & brick bats etc for filling inside soak pit) with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.				
	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	1.00		
	Water proofing				
50	Providing & Applying polymer modified, flexible cementitious negative side water proofing coating with elastic water proofing polymers on roof, walls, sunken toilets, etc in three coats @ 14.35kg/10sqm. one coat of self priming of cementitious water proofing polymer (dilution with water in the ratio of 1:1) and two coats of cementitious water proofing polymer (dilution with water in the ratio of 3:1) after scrapping and properly cleaning the surface to remove pre-existing paint film & loose particles till plaster or RCC surface is visible, complete in all respect as per the direction of Engineer.	Sqm			
	Total		42.50		

51	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
	Total	Per Ltr	1000		
52	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
	12 way, Double door	No	1		
53	Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuit breaker (RCCB), having a sensitivity current 30 milli amperes in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	25A	No	1		
54	Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	6A to 32A, SP, C-CURVE	No	10		
55	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required				
	1.5 sq. mm ISI marked, FRLS PVC insulated,	No	13		

56	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required				
	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Mtr	50		
	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire	Mtr	50		
57	Supplying and fixing following piano type switch/ socket on the existing switch box/ cover including connections etc. as required.				
	5/6 amps switch	No	1		
	15/16 amp switch	No	2		
	3 pin 5/6 amp socket outlet	No	1		
	6 pin 15/16 amp socket outlet	No	2		
58	Supply of surface mounted LED bulkhead with High Efficiency Extruded aluminium housing and Polycarbonate Diffuser with provision of End to End connection,along with driver,system wattage of 10+/- 2 Watts,lumen output of lamp greater than 800, power factor > 0.9,rated life of L70 @ 50,000 hours, system efficacy greater than 70lumen/watt and including all the necessary accessories as required complete. Installation, testing and commissioning including connection with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and earthing etc. as required.				
		No	13		
59	Supply installation, testing and commissioning of DOL starter upto 6 HP,3ph motor including auxiliary contactors , SPP, all the necessary accessories as required complete.				
		No	1		
60	Supply and laying (incl of following size 1.1 KV grade XLPE insulated, PVC sheathed, armoured copper conductor cable conforming to IS 7098 (Part 1) amended upto date. Inculding termination				
	3C 4 Sq.mm Cu	Mtr	50		
TOTAL AMOUNT (Rs)					
Add 18% GST					
GRAND TOTAL AMOUNT (Rs)					
