



Renovation of Ground floor of CFS building



## COCHIN PORT TRUST

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## TENDER DOCUMENT FOR RENOVATION OF GROUND FLOOR OF CFS BUILDING (TECHNICAL BID)

(e-Tendering Mode)

Website: [www.tenderwizard.com/CPT](http://www.tenderwizard.com/CPT)

Tender No. T6/T-1916/2020-C

COCHIN PORT TRUST,  
CHIEF ENGINEER'S OFFICE,  
COCHIN - 682 009.

Price : Rs.2100/- (2000 + 5% GST)



**Renovation of Ground floor of CFS building**

**COCHIN PORT TRUST  
CIVIL ENGINEERING DEPARTMENT**

**Tender No: T6/T-1916/2020-C**

**TENDER FOR RENOVATION OF GROUND FLOOR OF CFS BUILDING**

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**TENDER FOR RENOVATION OF GROUND FLOOR OF CFS BUILDING**

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**SECTION – I**

**COCHIN PORT TRUST**

**Chief Engineer's Office,  
Cochin Port Trust,  
W/Island, Cochin – 682009, KERALA  
Tele: 91-0484-2666414/0484-258-2400  
website: www.cochinport.gov.in**



**Tender No. T6/T-1916/2020-C**

**Date:- 27/02/2020**

**1. NOTICE INVITING TENDER**

1. Electronic Tenders (**e-tenders**) on percentage basis are invited by Cochin Port Trust from reputed Contractors in Single Stage Two Cover Bidding procedure [Technical Bid and Financial Bid], meeting the Minimum Eligibility Criteria specified below for the Work of '**RENOVATION OF GROUND FLOOR OF CFS BUILDING**'.

2. **Minimum Eligibility Criteria (MEC):**

**a) Experience**

The Bidders should have experience of having successfully completed during the last 7 (seven) years ending **31<sup>st</sup> January 2020** at least either :

(i) Three Similar works each costing not less than **Rs. 43.36 lakhs**

**(OR)**

(ii) Two Similar works each costing not less than **Rs.54.20 lakhs**

**(OR)**

(iii) One Similar work costing not less than **Rs. 86.72 lakhs**

**b) Financial Turnover**

Average Financial Turnover of the Bidder over the last three financial years ending **31<sup>st</sup> March 2019** (viz. 2016-'17, 2017-'18 and 2018-'19) should not be less than **Rs. 32.52 lakhs**

**Explanatory notes to a) & b) :**

**Note 1:- Similar Work(s) means Civil Construction Works.**

**Note 2:-** Following enhancement factors will be used for the costs of Works executed for bringing the financial figures to a common base value in respect of the Works completed in past years.

**Table 1.1**

<b>Year before</b>	<b>Multiplying Factor</b>
One year (February 2019)	1.07
Two years (February 2018)	1.14
Three years (February 2017)	1.21
Four years (February 2016)	1.28
Five years (February 2015)	1.35
Six years (February 2014)	1.42

*Note 3:- The experience certificate of Works executed in private sectors / organisations shall be considered for qualification, only on submission of TDS certificate along with Work order and completion certificate.*

*Note 4:- Satisfactory Client / Owners's Certificate or documentary proof shall be submitted in support of the Assignments / Works performed and claimed by the Bidder in Annexure 4 to fulfill the eligibility criteria for qualification. A statement duly certified by the Chartered Accountant showing the average annual Financial Turnover over the last 3 financial years and audited financial statements for the last three years shall be submitted.*

*Note 5:- The Works reckoned for the above purpose are those executed by the Bidders as prime Contractor or proportionately as member of joint venture or as a Sub Contractor, authorized and approved by the Employer of the Work (s) against which the Bidder has claimed his experience.*

**3. Other Eligibility Considerations:**

3.1 Even though the Bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- i) made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- ii) record of poor performance such as abandoning the Works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

3.2 The contractor shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme, as applicable under the act.



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If the number of employees proposed to be engaged in the work is less than the threshold limit under ESI/ EPF act, an undertaking to this effect shall be included in the tender submission.

4. **Pertinent information to the tender is given in the following Tables:**

i) **Schedule of different activities till submission of the Bid are detailed as under:**

**Table 1.2**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Date and Time</b>
1	Tender e-publication date	29-02-2020
2	Download period of Bid Documents	29/02/2020 to 20/03/2020
3	Date of Pre Bid meeting	Not Applicable
4	Last date for seeking clarification	17 hours on 13/03/2020
5	Last date and time of submission of Bid	20/03/2020 upto 15.00 hrs
6	Date and time of opening the Bid	20/03/2020 after 15.30 hrs

ii) **Bid information :**

**Table 1.3**

i)	Estimated Amount put to Tender	<b>: Rs. 108.40 lakhs</b>
ii)	Earnest Money Deposit	<b>:Rs.1,08,400/-</b> shall be furnished either through Demand Draft / Pay Order / Banker's Cheque drawn in favour of Financial Adviser & Chief Accounts Officer, CoPT, payable at Kochi, from any Nationalised Bank/ Scheduled Bank in India or through an irrevocable Bank Guarantee (BG) valid for a period of 148 days from the date of opening of tender, enforceable and encashable at Kochi, drawn from any Nationalised Bank/



### Renovation of Ground floor of CFS building

		Scheduled Bank operating in India.
iii)	Cost of Bid document	: <b>Rs.2100 (Rs.2000 + 5% GST)</b> (Non refundable) furnished either through Demand Draft /Banker's Cheque drawn in favour of the FA & CAO, CoPT, payable at Kochi, from any Nationalised Bank/ Scheduled Bank in India being the cost of single copy of the Tender Document
iv)	Validity period of Tender	: 120 days from the Last Date for Receipt of Tenders.
x)	Time for Completion	: <b>6 (Six) months</b>

5. This Work essentially comprises of :

- (i) Various dismantling works;
- (ii) Plain and Reinforced Cement Concrete works
- (iii) Filling with excavated earth and 6mm metal mixed with quarry dust;
- (iv) Precast Cement Concrete Masonry work;
- (v) Flooring with vitrified/ ceramic flooring tiles & dadoing with glazed tiles;
- (vi) Painting work with cement primer, Acrylic emulsion paint, Synthetic Enamel paint etc.;
- (vii) Wood work;
- (viii) Steel work welded in built up sections;
- (ix) Providing and fixing FRP doors;
- (x) Fabricating and fixing Aluminium doors, windows & ventilators;
- (xi) Providing and fixing European Type water closets, Waal urinals, Wash basins etc.
- (xii) Pipe line work with PVC pipes;

6. Tender Documents can be downloaded from the e-Tendering portal [www.tenderwizard.com/CPT](http://www.tenderwizard.com/CPT) on the dates specified in the above table by making online requisition. Bid document will also be available in Cochin Port website ([www.cochinport.gov.in](http://www.cochinport.gov.in)) as well as Central Public Procurement (CPP) Portal which can be downloaded for submission. The cost of Bid document shall be furnished in the form of Demand Draft/ Banker's Cheque drawn in favour of FA & CAO, CoPT along with the submission of Bid.



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7. The Bidders need to obtain the one time User ID & password for log-in to in e-**Tendering** system from the service provider M/s. **KEONICS** by paying registration amount of **Rs.1124/-** by online payment using Credit/Debit Card/Net banking or DD in favour of “KSEDCL, Bangalore.
8. The intending Bidder must have valid Class-II or III digital signature certificate to submit the Bid. For further details and to obtain the digital signature please contact e-Tender Help Desk No.080-49352000 / 9605557738
9. Tenders shall be submitted “**online**” strictly in accordance with the Instructions to Bidders and Terms & Conditions given in the Tender Document.
10. The Bidder is responsible to download Addenda/ Amendments/ Errata/ Replies to the queries of Bidder etc., if any, issued by CoPT, from the website before submission of the Bid. Any shortfall in submissions of the said Addenda/ Amendments/Errata/Replies to the queries of Bidder etc. duly signed along with the downloaded documents while submitting the Bid will not be considered. Incomplete Bid documents may be rejected.
11. All Bids are to be submitted **online only** on the website [www.tenderwizard.com/CPT](http://www.tenderwizard.com/CPT). No Bids shall be accepted off-line (Hard copy).
12. Cochin Port Trust will not be held responsible for any technical snag or network failure during online Bidding It is the Bidders responsibility to comply with the system requirement i.e. hardware, software and internet connectivity at Bidder’s premises to access the e-Tender portal. Under any circumstances, Cochin Port Trust shall not be liable to the Bidders for any direct/indirect loss or damages incurred by them, arising out of incorrect use of the e-Tender system or internet connectivity failures.
13. The complete Tender Document shall be submitted online as tender offer on or before the due date and time of submission. The scanned copy of financial instruments towards cost of Tender Document and EMD / Bid Security shall be uploaded with the Tender Document - Technical Bid while submitting the tender electronically in the e-procurement Portal. The Bidder shall submit the originals of (i) DD/ Pay Order/ Banker’s Cheque / Bank Guarantee (BG) towards the cost of Tender Document and EMD, and (ii) Power of Attorney, if applicable, **along with letter of submission** in a sealed cover duly mentioning the Tender No. & Name of Work, due date of opening of Bid and Name of the Bidder to the **Chief Engineer, Cochin Port Trust, W/Island, Cochin – 682009, KERALA, upto 15.00 hrs. on 20/03/2020. Non submission of the original financial instruments towards cost of Tender Document and EMD within the above period leads to disqualification of Bids.**
14. Bidders who are registered with National Small Industries Corporation (NSIC), Govt. of India enterprises under “Single Point Registration Scheme” of Ministry of MSME for similar nature of Works shall be eligible for issue of Tender Document free of cost and exemption from payment of Earnest Money Deposit. They are required to submit documentary proof of such registration along with the offer, as detailed in Instructions to Bidders, for claiming the





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available exemptions and a scanned copy of Exemption Certificate duly notarized shall be uploaded in the e – tendering Portal. ***If Registration Certificate does not pertain to Similar Works mentioned above, the tender will be rejected.***

15. The undersigned reserves the right to reject/cancel/postpone any one or all tenders at any stage of the tender, which will be binding on all Bidders.

Sd/-

**CHIEF ENGINEER  
COCHIN PORT TRUST  
TeleFax : 91 0484 2666414  
Email : [ce@cochinport.gov.in](mailto:ce@cochinport.gov.in)  
: [coptce@gmail.com](mailto:coptce@gmail.com)**



**SECTION – I**

**COCHIN PORT TRUST**

**2. INSTRUCTIONS TO BIDDERS**

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## **SECTION – I**

### **COCHIN PORT TRUST**

#### **2. INSTRUCTIONS TO BIDDERS**

##### **1. Introduction:**

1.1 This tender is invited for “RENOVATION OF GROUND FLOOR OF CFS BUILDING”. The work comprises

- (i) Various dismantling works;
- (ii) Plain and Reinforced Cement Concrete works
- (iii) Filling with excavated earth and 6mm metal mixed with quarry dust;
- (iv) Precast Cement Concrete Masonry work;
- (v) Flooring with vitrified/ ceramic flooring tiles & dadoing with glazed tiles;
- (vi) Painting work with cement primer, Acrylic emulsion paint, Synthetic Enamel paint etc.;
- (vii) Wood work;
- (viii) Steel work welded in built up sections;
- (ix) Providing and fixing FRP doors;
- (x) Fabricating and fixing Aluminium doors, windows & ventilators;
- (xi) Providing and fixing European Type water closets, Waal urinals, Wash basins etc.
- (xii) Pipe line work with PVC pipes.

##### **2. General Instructions:**

2.1 The Work is to be executed as described in the Bid Document and in particular in the Technical specifications, Special Conditions, Schedule of Quantities and drawings and in general includes, but is not limited to supplying all materials including consumables and equipment necessary to execute the Work as described in the Bid Document.

2.2 Before submitting the Bid, the Bidder shall examine carefully all conditions of contract, specifications, drawings etc. supplied herewith. The Bidders shall inspect the site of Work with prior appointment with the Engineer-in-Charge of the Work to get himself acquainted with the site conditions and to assess and satisfy himself of the difficulties and constraints which may be involved in executing the Work in the location. It will be deemed that prior to the submission of tender, the Bidder has visited the site and has satisfied himself as to the nature and location of the Work, general and local conditions, particularly those pertaining to transportation, handling and availability and



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storage of materials, availability of labour, weather conditions, tidal variations at site, Working conditions, ground level, nature of soil etc. and that the Bidder has estimated his cost accordingly and the Port Trust will be in no way responsible for the lack of such knowledge and also consequences thereof to the Bidder. Failure to visit the site will in no way relieve the successful Bidder of any of the obligations in performing the Work in accordance with this Bid Document including addenda/corrigenda, within the quoted price.

- 2.3 A Bidder shall be deemed to have full knowledge of all documents, site conditions etc. whether he has inspected them or not. The submission of a Bid by the Bidder implies that he has read the Notice and Conditions of Contract and has made himself aware of the scope and specifications and other factors bearing on the Bid and that they are binding on him.
- 2.4 The Bidders may please note that the EMPLOYER will not entertain any correspondence or query on the status of the offers received against this Bid. Bidders are also requested not to depute any of their personnel or agents to visit the Employer's offices for making such enquiries till finalisation of the Bid. Should the EMPLOYER find it necessary to seek any clarification, technical or otherwise the concerned Bidder will be duly contacted by the EMPLOYER.
- 2.5 Canvassing in any form by the Bidder or by any other agency acting on behalf of the Bidder after submission of the Bid may disqualify the said Bidder. The Employer's decision in this regard shall be final and binding on the Bidder.
- 2.6 The EMPLOYER will not be liable for any financial obligation in connection with the Work until such time the EMPLOYER has communicated to the successful Bidder in writing his decision to entrust the Work (covered by the Bid document issued to him).
- 2.7 Telefax/E-mail offers will not be considered. Bidders should prepare their Bid themselves and submit it online. Bids submitted by agents will not be recognized.
- 2.8 Bids received after the due date and time and any change in Bid after the specified date will be rejected. EMPLOYER will not be responsible for the loss of the Bid document or for the delay in postal transit.
- 2.9 In case of an unscheduled holiday on the prescribed closing/opening day of the Bid, the next Working day will be treated as the scheduled prescribed day of closing/opening of the Bid.
- 2.10 While evaluating the document, regard would be paid to National defence and security considerations, at the discretion of the Cochin Port Trust. Bid received from any Bidder may be summarily rejected on National security consideration without any intimation thereof to the Bidder.
- 2.11 If there are varying or conflicting provisions made in any document forming part of the contract, the Chief Engineer, Cochin Port Trust, Cochin – 682009 shall be the deciding authority with regard to the intention of the document which will be binding on the Bidder.



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- 2.12 In case the department desires to inspect the equipments/ machinery for confirmation of its availability and capacity etc., necessary arrangements shall be made by the Contractor for such inspection at his own cost.
- 2.13 Any error in description, any omissions there from shall not vitiate the contract or release the Contractors from the execution of whole Work or any part of the Works comprised therein, according to drawing and specifications or from any of his obligations under the contract
- 2.14 All the Bank Guarantees (BGs) to be furnished except for EMD by the Contractors in connection with the tender shall be sent to the Chief Engineer, Cochin Port Trust directly by the issuing bank under registered post with AD. The Contractor shall take the responsibility of sending BGs directly to the Port Trust by the issuing bank.
- 2.15 **The Contractor shall comply with all the provisions of the Indian Workmen's Compensations Act, Provident Fund Regulations, Employees Provident Fund and ESI Act etc. amended from time to time and rules framed there under and other laws affecting the contract labour that may be brought in to force from time to time.**
- 2.16 **The contractor shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme, as applicable under the act.**
- If the number of employees proposed to be engaged in the work is less than the threshold limit under ESI/ EPF act, an undertaking to this effect shall be included in the tender submission.**
- 2.17 **The Contractor shall be registered under GST and shall furnish documentary evidence in support of valid GST registration.**
- 2.18 Bidders who are registered with National Small Industries Corporation (NSIC), Govt. of India enterprises under “Single Point Registration Scheme” of Ministry of MSME for similar nature of Works shall be eligible for issue of Tender Document free of cost and exemption from payment of Earnest Money Deposit. They are required to submit documentary proof of such registration along with the offer, as detailed in Instructions to Bidders, for claiming the available exemptions and a scanned copy of Exemption Certificate duly notarized shall be uploaded in the e-procurement Portal. **If Registration Certificate does not permit to similar Works mentioned above, the tender will be rejected.**
- 2.19 If a Bidder has already been awarded or qualified for a similar nature Work with a higher value or equivalent value within the last 6 months from the date of notice inviting tender, the tender of such Bidder shall be evaluated / considered for qualification with the documents submitted by the Bidders in those tenders. Bidder shall clearly state the details of above such Works in the Letter of Submission.



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2.20 In the Letter of Submission, the Bidder shall compulsorily indicate two nos. of current active email addresses to which further Bid related communication can be sent by CoPT. All communication from CoPT shall be deemed to have been delivered when the email is sent to the specified email addresses, ie., the date of sending email by CoPT shall be considered as the date of receipt by the Bidder. CoPT shall, in no way, be responsible for the non-receipt of any such communication by the Bidder due to whatever reasons on this account.

### **3. Invitation for Bids:**

The Invitation for Bids is open to all eligible Bidders meeting the Eligibility Criteria.

### **4. Downloading of Tender Documents:**

Tender Documents can be downloaded from the e-Tendering portal [www.tenderwizard.com/CPT](http://www.tenderwizard.com/CPT) on the dates specified in NIT by making online requisition. Tender Document can also be downloaded from Cochin Port website [www.cochinport.gov.in](http://www.cochinport.gov.in) or Central Public Procurement (CPP) Portal. Demand Draft /Banker's Cheque for cost of Tender Document drawn in favour of the FA & CAO, CoPT from any Scheduled / Nationalised Bank having its branch at Kochi shall be submitted at time of submission of Bids and scanned copy of the same shall be attached with the e-tender.

In case of Tender Document being downloaded from the website, at the time of uploading, the Bidder shall give an undertaking that no changes have been made in the document. The Port's Tender Document will be treated as authentic tender and if any discrepancy is noticed at any stage between the Port's Tender Document and the one submitted by the Bidder, the Port's document shall prevail. For the discrepancies found at any time, the Bidder shall be liable for legal action.

### **5. One Bid per Bidder:**

Each Bidder shall submit only one Bid. A Bidder who submits or participates in more than one Bid will cause all the proposals with the Bidder's participation to be disqualified.

### **6. The Bidder:**

The Bidder shall be a single entity only.

### **7. Cost of Bidding:**

The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

### **8. Site Visit:**

The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the Work site and its surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for



## **Renovation of Ground floor of CFS building**

execution of the Work. The costs of visiting the site shall be borne by the Bidder.

### **9. Clarification of the Bidding Documents:**

- 9.1 The Bidders are advised to examine the Tender Document carefully and if there be or appear to be any ambiguity or discrepancy in the documents, or any clarifications needed on the Tender Documents; these shall be referred to the Chief Engineer in writing at the following address, so as to reach them at least by 13/03/2020. It is to be noted that no queries, clarifications will be answered after this date.

THE CHIEF ENGINEER,  
CHIEF ENGINEER'S OFFICE,  
COCHIN PORT TRUST,  
WILLINGDON ISLAND,  
KOCHI-9,  
KERALA, INDIA.

Ph:- 91-0484-2666414/2582400.

Fax:-91-0484-2666414.

Email:-coptce@gmail.com / ce@cochinport.gov.in

### **9.2 Pre-Bid Meeting:**

No Pre-Bid meeting will be held for this tender.

### **10. Amendment of Bidding Documents:**

The Chief Engineer, Cochin Port Trust shall have the right to omit or suspend certain items of Work or revise or amend the Bid documents prior to the due date of submission of the Bid by issuance of addenda/corrigenda. Any addendum / corrigendum thus issued shall be part of the Tender Document. The addendum/corrigendum, if any, shall only be hosted in the e-tender portal as well as in the website of the Cochin Port. It is the responsibility of the Bidders to download such addenda/ corrigenda hosted in the website and submits the same duly signed along with the Bid. In order to afford the Bidders with reasonable time to take addendum into account, or for any other reason, the Port Trust may, at its discretion, extend the due date for submission of Bid and Bid Extension Notice shall be hosted in the web site.

### **11. Preparation of Bids:**

All documents relating to the Bid shall be in the English language.

### **12. Minimum Eligibility Criteria:**

#### **a) Experience :**

The Bidders should have experience of having successfully completed during the last 7 (seven) years ending **31<sup>st</sup> January 2020** at least either

- (i) Three Similar Works each costing not less than **Rs.43.36 lakhs**

**(OR)**





## **Renovation of Ground floor of CFS building**

(ii) Two Similar Works each costing not less than **Rs.54.20 lakhs**

**(OR)**

(iii) One Similar Work costing not less than **Rs.86.72 lakhs**

### **b) Financial Turnover**

Average Financial Turnover of the Bidder over the last three financial years ending **31<sup>st</sup> March 2019** (viz. 2016-'17, 2017-'18 and 2018-'19) should not be less than **Rs.32.52 lakhs**

***Explanatory notes to a) & b) :***

***Note 1:- Similar Work(s) means Civil Construction works.***

***Note 2:-*** Following enhancement factors will be used for the costs of Works executed for bringing the financial figures to a common base value in respect of the Works completed in past years.

**Table 1.1**

<b>Year before</b>	<b>Multiplying Factor</b>
One year (February 2019)	1.07
Two years (February 2018)	1.14
Three years (February 2017)	1.21
Four years (February 2016)	1.28
Five years (February 2015)	1.35
Six years (February 2014)	1.42

***Note 3:-*** The experience certificate of Works executed in private sectors / organisations shall be considered for qualification, only on submission of TDS certificate along with Work order and completion certificate.

***Note 4:-*** Satisfactory Client / Owners's Certificate or documentary proof shall be submitted in support of the assignments / Works performed and claimed by the Bidder in Annexure 4 to fulfill the eligibility criteria for qualification. A statement duly certified by the Chartered Accountant showing the average annual Financial Turnover over the last 3 financial years and audited financial statements for the last three years shall be submitted.

***Note 5:-*** The Works reckoned for the above purpose are those executed by the Bidders as prime Contractor or proportionately as member of joint venture or as a Sub Contractor, authorized and approved by the



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*Employer of the Work (s) against which the Bidder has claimed his experience.*

### **13. Other Eligibility Considerations:**

13.1 Even though the Bidders meet the above qualifying criteria, they are subject to be disqualified if they have:

- i) made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or
- ii) record of poor performance such as abandoning the Works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.

13.2 The contractor shall be registered under EPF and ESI Act and the employees employed under them shall be covered in the EPF and ESI scheme, as applicable under the act.

If the number of employees proposed to be engaged in the work is less than the threshold limit under ESI/ EPF act, an undertaking to this effect shall be included in the tender submission.

### **14. Bid Prices:**

#### **14.1 Percentage Basis Contract:**

The Bidder shall fill the percentage above / below in the Bidder's Quoting Area under "Percentage Quoted" in the Schedule-II (Schedule of Quantities to be done on Contract) both in **figures and words**. The Bidder shall also fill 'Above / Below' column and also the amount corresponding to the percentage entered both in figures and words under "Bidder's Quoted Amount (Rs.)" and "Bidder's Quoted Amount in Words". On scrutiny, if there are differences between the percentage given in figures and in words or in amount worked out, the following procedure shall be followed:-

- a) When there is a difference between the percentage quoted in figures and in words, the percentage which corresponds to the amount worked out and filled in words shall be taken as correct.
- b) When the quoted amount is not worked out or it does not correspond with the percentage written either in figures or in words, then the percentage quoted in words, shall be taken as correct and for arriving Quoted amount worked out accordingly. .
- c) When the percentage quoted in figures and in words tallies but the Quoted amount is not worked out correctly, the percentage quoted shall be taken as correct and the amount quoted worked out accordingly.
- d) When the sign (+) / (-) and Above / Below does not correspond with each other, the words under Above / Below shall be taken as correct.

14.2 The Contract shall be for the whole Work based on the priced Bill of Quantities submitted by the Bidder. **Bidder should ensure that his tendered percentage as per Price Bid is not mentioned anywhere in any documents in Technical Bid submission, directly or indirectly. If any such mention is made, the tender will become invalid and shall become liable for rejection.**

#### **14.3 Currencies of Bid and Payment:**



## **Renovation of Ground floor of CFS building**

The unit rates and the prices in the Schedule II of this document are in Indian National Rupees (INR).

### **15. Bid Validity:**

Bids shall remain valid for a period not less than 120 (one hundred and twenty) days after the deadline date for Bid submission. A Bid valid for a shorter period shall be rejected by the Employer as non-responsive. Should any Bidder withdraw his tender before these periods, or make any modification in the terms and conditions of the tender which are not acceptable to the department, the earnest money deposited by the Bidder shall be forfeited.

In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that Bidder may extend the period of validity for an additional period. The request and Bidders response shall be made in writing. A Bidder agreeing to the request will not be permitted to modify his Bid (ie, the extension shall be unconditional) and shall submit an extension of EMD in case it is submitted in the form of Bank Guarantee.

### **16. Bid Security / Earnest Money Deposit (EMD):**

16.1 Each tender should be accompanied by an Earnest Money amounting to **Rs.1,08,400/- (Rupees One lakhs eight thousand and four hundred only)**. EMD shall be furnished either through Demand Draft / Pay Order / Banker's Cheque drawn in favour of Financial Adviser & Chief Accounts Officer, Cochin Port Trust payable at Kochi from any Nationalised Bank/ Scheduled Bank in India or through an irrevocable Bank Guarantee (BG) valid for a period of 148 days from the date of opening of tender, enforceable and encashable at Kochi, drawn from any Nationalised Bank/ Scheduled Bank operating in India, as per the proforma at *Annexure-11*. **In case, BG is furnished for EMD, BG shall be verified independently by the Port with the bank before finalisation of technical offers. In the event of lack of confirmation of issue of the BG by the bank, the Bid shall stand disqualified.**

16.2 The Earnest Money Deposit will not carry any interest. Any Bid not accompanied by an acceptable Bid Security shall be treated as Non-responsive and shall be rejected by the Employer.

### **16.3 Forfeiture of Bid Security / EMD**

Bid Security/ EMD will be forfeited in the following cases:

- (a) If a Bidder withdraws his Bid during the period of Bid Validity.
- (b) The Bidder does not accept the correction of the Bid Price pursuant to any arithmetical errors.
- (c) In case of a successful Bidder fails
  - (i) to commence the Work, within the specified time limit;
  - (ii) to sign the Agreement or furnish the required Performance Security within the specified time limit



## **Renovation of Ground floor of CFS building**

### **17. No Alternative Proposals by Bidders:**

Bidders shall submit offers that comply with the requirements of the Bidding documents. Alternatives will not be considered.

### **18. Format and Signing of Bid:**

18.1 Bidder shall prepare one set of his Tender excluding Departmental Tender Document including all addenda / corrigenda duly completed and signed, mentioned hereinafter. Form of Bid shall be signed by a person or persons duly authorised to sign on behalf of the Bidder with signature duly witnessed and company seal affixed. The Power of Attorney (in original) authorizing the signatory/s of the Tender shall be enclosed.

18.2 If the tender is made by an individual it shall be signed by his full name and his address shall be given. In the event of the tender being submitted by a registered partnership firm, it must be signed individually by each partner thereof. In the event of absence of any partner, it must be signed on his behalf by person holding a proper power-of- attorney authorising him to do so and to bind the partner in all matters pertaining to the contract including the arbitration clause, such power-of-attorney to be attached with the tender which must disclose that the firm is duly registered under Indian Partnership Act. If the tender is made by a Limited Company it shall be signed by a duly authorised person who shall produce with the tender satisfactory evidence of the authorisation. In the case of a Limited Company the tender should be accompanied by the Memorandum and Articles of Association of the Company.

### **19. Bid Submission:**

19.1 Bid shall be submitted in two parts, **Part - I: Technical Bid** and **Part - II: Price Bid through e-tender mode** before 15.00 Hrs on 20/03/2020.

19.2 For online submission of Technical **Bid**, the scanned copies of the documents as detailed in clause 21 below need be submitted through e-Tendering mode on [www.tenderwizard.com/CPT](http://www.tenderwizard.com/CPT).

19.3 Price Bid (Schedule-II) in the provided format shall be submitted only through e-tendering mode on [www.tenderwizard.com/CPT](http://www.tenderwizard.com/CPT). **In no case shall filled in Price Bid (Schedule II) be submitted in hard copy, as it shall result in rejection of the tender.**

19.4 Tenders shall be submitted “**online**” strictly in accordance with the Instructions to Bidders and Terms & Conditions given in the Tender Document. The Bidders should submit scanned copy of all the required documents such as DD / Pay Order / Banker’s Cheque towards the cost of tender and EMD; proof of experience, financial details etc. through the e-tendering portal.

19.5 The Bidder shall submit the originals of (i) DD/ Pay Order/ Bankers Cheque/ BG towards the cost of Tender Document and EMD, as applicable, and (ii) Power of Attorney, if applicable, **along with letter of submission** in a sealed



## **Renovation of Ground floor of CFS building**

cover duly mentioning the Tender No. & Name of Work, due date of opening of Bid and Name of the Bidder to the **Chief Engineer, Cochin Port Trust, W/Island, Cochin – 682009, KERALA upto 15.00 hrs. on 20/03/2020.**

- 19.6 **Non submission of the original financial instruments towards cost of Tender Document and EMD within the above period leads to disqualification of Bids.**
- 19.7 The successful Bidder shall submit original copy of complete Technical Bid already submitted in e-mode within 7 days of receipt of Letter of Acceptance issued for the Work.

### **20. Information Required in the Bid**

20.1 **Part I -Technical Bid** shall contain the following:

- (a) Earnest Money Deposit as described in Clause 16.1 above
- (b) Cost of Tender Document
- (c) Check list as per **Schedule I**
- (d) Letter of Submission (vide *Annexure- 1*)
- (e) Power of Attorney (in original) in favour of signatory/s to the Tender, duly authenticated by Notary Public. (vide *Annexure -2*)
- (f) Organization Details (vide *Annexure-3*)
- (g) Details of experience as per *Annexure-4* and Certificates in proof of experience in Similar Works as detailed under clause 12 of Instruction to Bidders.

#### **Explanatory Notes:**

- (1) Original or notary certified copy of completion certificates of each Work issued by the owner/ the responsible officers of the owner under whom he has executed such contracts a Work order shall be attached. The Certificate shall invariably contain the following among other things.
  - (i) Details of Work involved specifying the nature of Work
  - (ii) The completion cost of the Work
  - (iii) Date of commencement ; and
  - (iv) Actual and Scheduled Date of completion of the Work.
- (2) If the experience in Similar Works is as a member of Joint Venture, notary attested copy of Joint Venture Agreement in this respect shall be attached.
- (3) If the experience in Similar Works is as a Sub Contractor, notary attested copy(s) of approval issued by the Original Employer(s)/ Owner authorizing as a Sub-Contractor; in proof of the claim of the Bidder as a Sub-Contractor shall be attached.



## **Renovation of Ground floor of CFS building**

- (4) **The Works indicated in Annexure- 4 will only be considered for evaluation.** Mere submission of Work Completion Certificate will not be considered as Eligible Assignments
- (h) A statement duly certified by Chartered Accountant showing Average Financial turnover of the Bidder over the last three financial years (2016-'17, 2017-'18 and 2018-'19) (vide **Annexure-5**) supported by Audited Financial statements for the last three years.
- (i) Form of Bid duly signed and sealed
- (j) **Bid document including all addenda/ corrigenda**
- (k) Partnership Deed or Memorandum and Articles of Association of the Company and Registration Certificate of the Company as the case may be.
- (l) Copies of GST, PAN, EPF and ESI registration
- (m) Documentary proof for NSIC registration, if applicable
- (n) A detailed method statement (Technical Note) for carrying out of the Works, along with a implementation schedule showing sequence of operation and the time frame for various segments of temporary and permanent Works.(vide **Annexure-6**). The information provided will form part of the Work methodology and the same shall be in line with the Specifications and Bill of quantities.
- (o) A list of Plant and equipment proposed to be engaged for Work. (vide **Annexure-7**). The equipment indicated in the **Annexure-7** will form part of contract Agreement and as such the Bidders are requested to indicate the availability of the equipment at site at what stage of the construction period the equipment would made available.
- (p) A declaration to the effect that (vide **Annexure - 8**):-
- (i) All details regarding construction plant and machinery, temporary Work and personnel for site organization considered necessary and sufficient for the Work have been furnished in the **Annexure-7** and that such plant, temporary Works and personnel for site organization will be available at appropriate time of relevant Works for which the equipment have been proposed at site till the completion of the respective Work.
- (ii) No conditions are incorporated in the financial / price Bid. In case any conditions are specified in the Price Bid, the tender will be rejected summarily without making any further reference to the Bidder.
- (iii) We have not made any payment or illegal gratification to any persons/ authority connected with the Bid process so as to influence the Bid process and have not committed any offence under PC Act in connection with the Bid.
- (iv) We disclose with that we have made / not made payments or propose



## Renovation of Ground floor of CFS building

to be made to any intermediaries (agents) etc in connection with the Bid.

- (v) We do hereby confirm that no changes have been made in the Tender Document downloaded and submitted by us for the above Bid. Port Tender Document will be treated as authentic tender and if any discrepancy is noticed at any stage between the Port's Tender Document and the one submitted by the Bidder, the Port's document shall prevail.
- (q) Details of litigation history, blacklisting etc. of the Bidder, if any.
- (r) Details of the Bidder opting for refund of EMD through e- payment system as per *Annexure- 9*.
- (s) Bank information for e- Payment system as per *Annexure- 10*.

**NOTE :** *If a Bidder has already been awarded or qualified for a similar nature Work with a higher value or equivalent value within the last 6 months from the date of notice inviting tender, the tender of such Bidder shall be evaluated / considered for qualification with the documents submitted by the Bidders in those tenders. Bidder shall clearly state the details of above such Works in the Letter of Submission.*

20.2 **Part-II : Price Bid"** shall contain Bill of Quantities - Schedule II shall be duly filled in and fully priced, which shall be submitted only **in e-tendering mode**.

### **21. List of Documents to be submitted:**

#### **21.1 List of Documents to be uploaded for online submission of Technical Bid**

- (i) Scanned copy of financial instruments towards cost of Tender Document and EMD / Bid Security or scanned notarized copy of Exemption Certificate, as the case may be
- (ii) Scanned copies of *Annexures- 1 to 12*, duly signed
- (iii) Scanned copy of Form of Bid duly signed
- (iv) Scanned copy of Partnership Deed or Memorandum and Articles of Association of the Company and Registration Certificate of the Company as the case may be.
- (v) Scanned notarized copies of completion certificates of similar Works
- (vi) Scanned copies of Audited Financial statements for the last three years.
- (vii) Technical Bid document including all addenda/corrigenda and General Conditions of Contract with Amendments in PDF format.

#### **21.2 List of documents to be submitted in original.**

- (i) DD / Pay Order/ Bankers Cheque / Bank Guarantee towards EMD and Cost of Tender Document, as applicable.
- (ii) Letter of Submission (vide *Annexure-1*)
- (iii) Power of Attorney, duly authenticated by Notary Public (vide *Annexure-2*)



## Renovation of Ground floor of CFS building

### **22. Deadline for Submission of the Bids:**

E-tenders attaching all documents shall be submitted 'on-line' in the e tender portal strictly in accordance with the terms and conditions of Tender Document before the time and the day notified in **Table 1.2** of **NIT**

The sealed Technical Bid in hard copy containing all the documents listed in Clause 21.2 above in original superscribed with the Tender Number, Name of Work, date notified for submission of tender and the Name of the Bidder, should reach the office of the Chief Engineer, Cochin Port Trust, Cochin-9, on or before the time and the day notified in **Table 1.2** of **NIT**.

### **23. Late Bids:**

Any Bid received by the Employer after the Bid due date will be returned unopened to the Bidder.

### **24. Bid Opening – Technical Bid:**

24.1 The Officer inviting the tender or his duly authorized assistant will open the tenders in the presence of intending Bidders who may be present at the time in person or through their authorized representative. In the case of the tenders invited under Two Cover System, the technical Bids of the tenders received will be opened first.

24.2 **Technical Bid** : Technical Bid shall be opened in the office of the **Chief Engineer, Cochin Port Trust** after **15.30 Hours** on the last date fixed for receiving the Tenders. Submission of EMD and Cost of document is verified initially. In case the earnest money and cost of Bid document is not deposited or is not in order, the Bid will not be opened further and hard copy submitted will be returned.

24.3 If all Bidders have submitted unconditional Bids together with requisite Bid Security, then all Bidders will be so informed then and there. If any Bid contains any deviation from the Bids documents and /or if the same does not contain Bid Security in the manner prescribed in the Bid documents, then that Bid will be rejected and the Bidder will be informed accordingly. The Price Bid submitted in e- mode will not be opened.

24.4 In the event of a tender being rejected, the Earnest Money paid with such unaccepted tender shall be refunded to the Bidder.

### **25. Bid Opening – Price Bid:**

Price Bid of those Bidders found responsive in the evaluation of Technical Bid, will be opened later. **Short listed Bidders will be communicated about the date and time of opening of the Price Bid through e-tender portal notification / communication only and there will be no direct communication from department in this regard.** The Bidder's name, the Bid Prices, the total amount of each Bid, any discounts, Bid modifications and withdrawals, and such other details as the Employer may consider appropriate, will be announced by the Employer at the time of opening.





## **Renovation of Ground floor of CFS building**

### **26. Clarification of Bids:**

To assist in the examination and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdown of unit rates. The request for clarification and the response shall be in writing, but no change in the price or substance of the Bid shall be sought, offered, or permitted.

No Bidder shall contact the Employer on any matter relating to his Bid from the time of the Bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, he should do so in writing.

Any effort by the Bidder to influence the Employer's Bid evaluation, Bid comparison or contract award decisions, may result in the rejection of his Bid.

### **27. Examination of Bids and Determination of Responsiveness:**

27.1 Prior to detailed evaluation of Bids, Cochin Port Trust will determine whether each Bid

- (a) meets the Minimum Eligibility Criteria defined in Clause 12.
- (b) has been properly signed by an authorised signatory (accredited representative) holding Power of Attorney in his favour. The Power of Attorney shall inter alia include a provision to bind the Bidder to settlement of disputes clause;
- (c) is accompanied by the required Bid Security and;
- (d) is responsive to the requirements of the Bidding documents.

A responsive Bid is one which conforms to all the terms, conditions and specification of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one which affects in any substantial way the scope, quality or performance of the Works;

- (i) which limits in any substantial way, the Employer's rights or the Bidder's obligations under the Contract; or
- (ii) whose rectification would affect unfairly the competitive position of other Bidders presenting responsive Bids.
- (iii) undertakes in the Technical Bid that he has not incorporated any conditions in the Price Bid

27.2 If a Bid is not substantially responsive, it shall be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

### **28. Evaluation and Comparison of Bids:**

The Employer will evaluate and compare only the Bids determined to be responsive in accordance with Clause 27. In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price



## **Renovation of Ground floor of CFS building**

as follows:

- (a) making appropriate adjustments to reflect discounts or other price modifications offered.

### **29. Alteration of Tender Documents:**

No alteration shall be made in any of the Tender Documents or in the Bill of Quantities and the tender shall comply strictly with the terms and conditions of the Tender Document. The Employer may however ask any Bidder for clarifications of his tender if required. Nevertheless, no Bidder will be permitted to alter his tender price after opening of the tender.

### **30. Alternative Conditions and Proposals:**

The Bidder shall note that alternative or qualifying tender conditions, or alternative design proposal for whole or part of the Work will not be acceptable. Tenders containing any qualifying conditions or even Bidder's clarifications in any form will be treated as non-responsive and will run the risk of rejection. Price Bid of such Bidder's will not be opened.

### **31. Award of Contract:**

The Employer will award the Contract to the Bidder whose Bid has been determined to be responsive to the Bidding documents and who has offered the lowest evaluated Bid price, provided that such Bidder has been determined to be

- (a) Eligible in accordance with the provisions of Clause 12, and
- (b) Qualified in accordance with the provisions of Clause 12.

### **32. Notification of Award:**

32.1 The Bidder whose Bid has been accepted will be notified about the award by the Employer prior to the expiry of the Bid Validity period by email or facsimile, confirmed by registered letter. This letter (hereinafter and in the Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in consideration of the execution, completion and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

32.2 The notification of award will constitute the formation of the Contract subject only to the furnishing of a Performance Security in accordance with the provisions of Clause 34.

### **33. Release of Bid Security / EMD:**

The Bid Security/EMD of unsuccessful Bidder other than L1 and L2 will be refunded immediately after ranking of the Bids. The Bid Security of L2 Bidder shall be refunded immediately after entering into Agreement with L1 Bidder and acceptance of the Performance Security. The Bid Security of the successful Bidder will be discharged after he has signed the Agreement and furnished the required Performance Security



## **Renovation of Ground floor of CFS building**

### **34. Performance Security:**

34.1 Within not later than 21 days for domestic Bids and 28 days for international Bids from the date of the Letter of Acceptance or within such time as extended by the Employer, the successful Bidder shall deliver to the Employer a Performance Security for an amount equivalent to 5% of the Contract Price rounded off to the nearest Rs.1000/- in any one of the following forms:

- (i) Banker's Cheque/Demand Draft/Pay Order of a Nationalised/Scheduled Indian Bank having its branch at Kochi acceptable by ***Cochin Port Trust*** .
- (ii) An irrevocable Bank Guarantee(BG) enforceable and encashable at Cochin, drawn from any Nationalised /Scheduled Indian bank having its branch at Cochin acceptable by ***Cochin Port Trust***. The BG shall be issued in favor of ***Cochin Port Trust*** in the Format enclosed in ***Annexure-A of GCC***. If the Performance Security is not furnished within the original prescribed period by the successful Bidder, a late fee @ 0.10% of the Performance Security amount ***per day beyond the*** original prescribed period shall be ***levied and the*** same shall be recovered from ***the 1<sup>st</sup> running*** account bill.

34.2 The Security Deposit will not carry any interest.

### **34.3 Forfeiture of Performance Security**

34.3.1 Provisions of Sanctions for Violation as detailed under shall be applicable for forfeiture of Performance Security in case of a decision by the Employer to forfeit the same without assigning any reason for imposing Sanction for Violation.

#### **34.3.2 *Sanctions for Violations:***

Any breach of the aforesaid provisions by the Bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder) shall entitle the Employer to take all or any one of the following actions, wherever required:-

- (i) The Security Deposit/Performance Guarantee shall stand forfeited either fully or partially, as decided by the Employer and the Employer shall not be required to assign any reason therefore.
- (ii) To immediately cancel the contract, if already signed, without giving any compensation to the Bidder.
- (iii) To cancel all or any other Contracts with the Bidder. The Bidder shall, be liable to pay compensation for any loss or damage to the Employer resulting from such cancellation/rescission and the Employer shall be entitled to deduct the amount so payable from the money(s) due to the Bidder.
- (iv) To debar the Bidder from participating in future Bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the Employer.
- (v) To recover all sums paid in violation of the Bid by Bidder (s) to any



## **Renovation of Ground floor of CFS building**

middleman or agent or broker with a view to securing the contract.

- (vi) Forfeiture of Performance Guarantee in case of a decision by the Employer to forfeit the same without assigning any reason for imposing sanction for violation of this Bid.

34.3.3 The Employer will be entitled to take all or any of the actions mentioned above by the Bidder or any one employed by it or acting on its behalf (whether with or without the knowledge of the Bidder), of an offence as defined in Chapter IX of the Indian Penal code, 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

34.3.4 The decision of the Employer to the effect that a breach of the provisions of this Bid has been committed by the Bidder shall be final and conclusive on the Bidder.

### **35. Signing of Agreement**

35.1 The successful Bidder will be required to execute an Agreement at his expense within 28 (twenty eight) days from the date of receipt of Letter of Acceptance or within such time as extended by the Employer, on proper value Kerala State Stamp Paper in the prescribed form. The Agreement as finally executed will include the Employer's Bid Documents and the Bidder's offer as finally accepted by the EMPLOYER together with addenda/corrigenda, Bid clarification and all correspondences exchanged between EMPLOYER and the Bidder, if any. Till the formal Agreement is executed, the Letter of Acceptance together with the offer as finally accepted along with correspondences shall form a binding contract between the two parties.

35.2 The Contractor shall make 12 copies of the Agreement and submit to the Employer within 7 days following the date of signing of Agreement.

35.3 In the event of the Bidder, after the issue of the communication of acceptance of offer by the Board, failing /refusing to execute the Agreement as hereinafter provided, the Bidder shall be deemed to have abandoned the contract and such an act shall amount to and be construed as the Contractor's calculated and the willful breach of the contract, the cost and consequence of which shall be to the sole account of the Bidder and upon such an event the Board shall have full right to claim damages therefore either together with or in addition to the forfeiture of Earnest Money Deposit.

### **36. Fraud and Corrupt Practices:**

36.1 The Bidder and their respective officers, employees, agents and advisers shall observe the highest standard of ethics during the Selection Process. Notwithstanding anything to the contrary contained in this document, the Port shall reject the tender without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder has, directly or indirectly or through an agent, engaged in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice (collectively the "Prohibited Practices") in the Selection Process. In such an event, the Port shall, without prejudice to its any other rights or remedies, forfeit and appropriate the Bid



## Renovation of Ground floor of CFS building

Security or Performance Security, as the case may be, as mutually agreed genuine pre-estimated compensation and damages payable to the Port for, inter alia, time, cost and effort of the Authority, in regard to the Tender, including consideration and evaluation of such Bidder's Proposal. Such Bidder shall not be eligible to participate in any tender or RFP issued by the Authority during a period of **2 (two) years** from the date such Bidder is found by the Authority to have directly or through an agent, engaged or indulged in any corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice, as the case may be.

36.2 For the purposes of this Clause, the following terms shall have the meaning hereinafter respectively assigned to them:

- (a) "corrupt practice" means
  - (i) the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence the action of any person connected with the Selection Process (for avoidance of doubt, offering of employment to or employing or engaging in any manner whatsoever, directly or indirectly, any official of the Authority who is or has been associated in any manner, directly or indirectly with the Selection Process or the LOA or has dealt with matters concerning the Agreement or arising there from, before or after the execution thereof, at any time prior to the expiry of one year from the date such official resigns or retires from or otherwise ceases to be in the service of the Authority, shall be deemed to constitute influencing the actions of a person connected with the Selection Process; or
  - (ii) engaging in any manner whatsoever, whether during the Selection Process or after the issue of the LOA or after the execution of the Agreement, as the case may be, any person in respect of any matter relating to the Project or the LOA or the Agreement, who at any time has been or is a legal, financial or technical consultant/ adviser of the Authority in relation to any matter concerning the Project;
- (b) "fraudulent practice" means a misrepresentation or omission of facts or disclosure of incomplete facts, in order to influence the Selection Process;
- (c) "coercive practice" means impairing or harming or threatening to impair or harm, directly or indirectly, any persons or property to influence any person's participation or action in the Selection Process;
- (d) "undesirable practice" means
  - (i) establishing contact with any person connected with or employed or engaged by the Authority with the objective of canvassing, lobbying or in any manner influencing or attempting to influence the Selection Process; or
  - (ii) having a Conflict of Interest; and
- (e) "restrictive practice" means forming a cartel or arriving at any understanding or arrangement among Applicants with the objective of



**Renovation of Ground floor of CFS building**

restricting or manipulating a full and fair competition in the Selection Process.

**37. Rejection of Tender:**

Any Tender not conforming to the foregoing instructions will not be considered. The Employer does not bind himself to accept the lowest or any tender and has the right to reject any tender without assigning any reason thereof. No representation whatsoever will be entertained on this account.

**SIGNATURE OF BIDDER**



## SECTION - I

### COCHIN PORT TRUST

#### 3. FORM OF BID

**To**

The Board of Trustees,  
Cochin Port Trust

**Through**

The Chief Engineer,  
Cochin Port Trust, Cochin -9

#### **TENDER FOR the Work of RENOVATION OF GROUND FLOOR OF CFS BUILDING**

I/We have read and examined the Notice Inviting Tenders, Instructions to Bidders, Form of Agreement, Contract Data, General Conditions of Contract (GCC), General Description of Work, Special Conditions of Contract, Technical Specifications, Drawings, Preamble, Bill of Quantities & other documents and rules referred to in the General Conditions of Contract and all other contents in the Tender Document for the Work.

I/We hereby TENDER FOR the execution of the Work specified in the under written memorandum within the time specified in such memorandum at the rates specified in the schedule attached hereto and in accordance in all respects with the specifications designs, drawings and instructions in writing referred to in clause 16 of the General Conditions of Contract and with such materials as are provided for, by and in all other respects in accordance with such conditions so far as applicable.

#### **MEMORANDUM**

- |                                |  |
|--------------------------------|--|
| a) General description of Work | : RENOVATION OF GROUND FLOOR OF CFS BUILDING   |
| b) Estimated cost              | : <b>Rs.108.40 lakhs</b>   |
| c) Earnest Money               | : <b>Rs.1,08,400/-</b>   |
| d) Security Deposit            | : 10% of the value of the contract awarded or the value of the Work done whichever is higher [Performance Guarantee @ 5% and Retention Money @ 5%] |



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- e) Percentage, if any, to be deducted from the bills : The Retention Money will be recovered from the first running bill onwards at the rate of 5% of the gross amount of each bill till the recovered sum amounts to 5% of the contract value or value of work done whichever is higher.
- f) Time allowed for commencement of Work from the date of receipt of Work order : 15 days
- g) Time allowed for the Work from the date of commencement of Work : **6 (Six) months.**
- h) Schedule, specifications, conditions, drawings etc. : As per the 'Contents' sheet attached.

I/ We agree to keep the tender open for 120 days from the due date of submission and not to make any modifications in its terms and conditions

Should this tender be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed here to so far as applicable or in default thereof forfeit and pay to the Board the sum of money mentioned in the said conditions and to execute an Agreement with the Board in the prescribed form or in default thereof to forfeit the earnest money deposited by me/us.

The sum of Rs.5,46,250/- is hereby forwarded in Bankers Cheque / Pay Order / Demand Draft / Bank Guarantee of a Nationalised / Scheduled Indian bank having its branch at Kochi drawn in favour of Financial Adviser and Chief Accounts Officer of the Port Trust as Earnest Money (a) the full value of which is to be absolutely forfeited to the Board in office without prejudice to any other rights or remedies of the said Board in office should I/We fail to commence the Work specified in the Contract data or should I/We not deposit the full amount of Performance Security specified in the above Memorandum in accordance with clause 52 of GCC otherwise the said sum of Rs.5,46,250/- shall be retained by the Board as on account of such security deposit as aforesaid or (b) the full value of which shall be retained by the Board on account of the security deposit to execute all the Works referred to in the Tender Documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Clause 40.1 of GCC and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 40.3 of the GCC.

Dated the ..... day of ..... 2020.

**Signature of the Bidder**

Address :





**Renovation of Ground floor of CFS building**

Witness :

Address :

Occupation :

**ACCEPTANCE**

The above tender ( as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the Board of Trustees for a sum of Rs..... (Rupees .....)

The letters referred to below shall form part of this contract Agreement

- a) .....
- b) .....
- c) .....

Dated.....

**Chief Engineer  
Cochin Port Trust**



**SECTION - I**

**COCHIN PORT TRUST**

**4. FORM OF AGREEMENT**

**AGREEMENT No. ... of 20... - ....**

**AGREEMENT FOR THE WORK OF  
RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**THIS AGREEMENT IS MADE** on this day ..... of ..... **BETWEEN** THE BOARD OF TRUSTEES OF COCHIN PORT TRUST , a body corporate under the Major Port Trust Act, 1963 having office on Willingdon Island, Cochin – 682009 represented by its \*Chief Engineer/\*Deputy Chief Engineer/\*Superintending Engineer Shri..... S/o ..... aged ..... years residing at ..... Village ..... Taluk ..... District (hereinafter referred to as the Employer which expression shall include his successors, assignees and administrators in the office) of the one part and M/s. .... represented by Shri. .... aged ..... S/o ..... residing at ..... Village ..... Taluk ..... District (hereinafter referred as “Contractors” which expression shall include their successors, assignees and administrators) of the other part.

**WHEREAS** the Employer invited tenders for ..... vide Tender Notice ..... Date ..... and the Contractor submitted a TENDER FOR the same giving rates subject to the terms and conditions etc. of the Tender Document.

**AND WHEREAS** the said tender submitted by the Contractor has been accepted by the Employer vide Work order No ..... dated ..... issued to the Contractor while accepting their tender.

**NOW THESE PRESENTS WITNESSETH** and the parties hereby agree as follows.

- (1) The tender submitted by the Contractor for execution for the Board, of the Work specified in the underwritten memorandum within the time specified in such memorandum at the rates specified in the schedule attached hereto and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Clause 16 of the “General Conditions of Contract” and with such materials as are provided for, by and in all other respects in accordance with such conditions is accepted.
- (2) It is mutually understood and agreed that, notwithstanding that the Works has been sectioned, every part of it shall be deemed to be supplementary to and complementary of every other part and shall be read with it or into it.



### **Renovation of Ground floor of CFS building**

- (3) The Contractor agreed to abide by and fulfill all the terms and provisions of the said Conditions of Contract or in default thereof forfeit and pay to the Board the sum of money mentioned in the said conditions.
- (4) The sum of Rs...../- [Rupees.....only) has been deposited by the Contractor with Financial Adviser and Chief Accounts Officer of the Port Trust as Performance Security (a) the full value of which is to be absolutely forfeited to the Board in office without prejudice to any other rights or remedies of the said Board in office should the Contractor fail to commence the Work specified in underwritten memorandum or should the Contractor not deposit the full amount of security deposit specified in underwritten memorandum otherwise the said sum of Rs...../- shall be retained by the Board as on account of such security deposit as aforesaid or (b) the full value of which shall be retained by the Board on account of the security deposit to execute all the Works referred to in the Tender Documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Clause 40.1 of the General Conditions of Contract and those in excess of that limit at the rates to be determined in accordance with the provisions contained in Clause 40.3 of the General Conditions of Contract.
- (5) It is mutually agreed that the tender submitted in its entirety shall form part of this Agreement. Apart from the tender the following shall also form part of the Agreement
  - (a) The Letter of Acceptance
  - (b) Bill of Quantities; and
  - (c) Letters exchanged between the Employer and the Bidder upto the issue of Letter of Acceptance as separately listed and annexed here to.
  - (d) Replies to Pre Bid Queries and Amendments issued, if any.

#### **MEMORANDUM**

- |                                |  |
|--------------------------------|--|
| a) General description of Work | : RENOVATION OF GROUND FLOOR OF CFS BUILDING   |
| b) Estimated cost              | : Rs.108.40 lakhs  |
| c) Tendered cost               | : Rs.  |
| d) Earnest Money               | : Rs.1,08,400/-  |
| e) Security Deposit            | : 10% of the value of the contract awarded or the value of the Work done whichever is higher [Performance Guarantee @5% and Retention Money @5%] |



**Renovation of Ground floor of CFS building**

- f) Percentage, if any, to be deducted from the bills : The Retention Money will be recovered from the first running bill onwards at the rate of 5% of the gross amount of each bill till the recovered sum amounts to 5% of the contract value or value of Work done whichever is higher.
- g) Time allowed for commencement of Work from the date of receipt of Work order : 15 days
- h) Time allowed for the Work from the date of commencement of Work : **6 (Six) months.**
- i) Schedule, specifications, conditions, drawings etc. : As per the 'Contents' sheet attached.

IN WITNESS WHEREOF THE CONTRACTOR hereunto set his hand and seal on behalf of M/s..... and on behalf of the Board of Trustees of COCHIN PORT TRUST, the \*CHIEF ENGINEER / \*DEPUTY CHIEF ENGINEER / \*SUPERINTENDING ENGINEER has set his hand and seal and common seal of Trustees has been hereunto affixed the day and year first written above.

**CONTRACTOR**

\*(Retain only the authority signing the Agreement)

Signed, sealed and delivered

By Shri.....

of M/s.....

(COMMON SEAL OF THE FIRM)

Signed and affixed seal in the presence of :

1) Signature with address :

2) Signature with address :

Signed, sealed and delivered by the

\*CHIEF ENGINEER/\*Dy. CHIEF ENGINEER/

\*SUPERINTENDING ENGINEER,

Cochin Port Trust on behalf of Board of

Trustees of Port of Cochin.

**EMPLOYER**



**Renovation of Ground floor of CFS building**

Signed and affixed the common seal of  
Board of Trustees of the Port of Cochin

In the presence of

- 1)
- 2)

\*(Retain only the authority signing the Agreement)



**Renovation of Ground floor of CFS building**

**SECTION - I**

**COCHIN PORT TRUST**

**5. CONTRACT DATA**

**Items marked “N/A” do not apply in this Contract.**

<b>Sl. No.</b>	<b>Description</b>	<b>Reference Clause No. in GCC</b>												
1	<i>The following documents are also part of the Contract</i>													
	The Schedule of other Contractors <b>N/A</b>	(8.2)												
	The Schedule of Key personnel	(9)												
	<table border="1"> <thead> <tr> <th>Qualification of Staff</th> <th>No.</th> <th>Min. Experience (Years)</th> <th>Rate of recovery in case of non compliance</th> </tr> </thead> <tbody> <tr> <td>i) Graduate Engineer</td> <td>1</td> <td>5</td> <td>Rs.25,000/- p.m.</td> </tr> <tr> <td>ii) Graduate Engineer <b>or</b> Diploma Engineer</td> <td>2 2</td> <td>2 5</td> <td>Rs.15,000/- p.m. Rs.15,000/- p.m.</td> </tr> </tbody> </table>	Qualification of Staff	No.	Min. Experience (Years)	Rate of recovery in case of non compliance	i) Graduate Engineer	1	5	Rs.25,000/- p.m.	ii) Graduate Engineer <b>or</b> Diploma Engineer	2 2	2 5	Rs.15,000/- p.m. Rs.15,000/- p.m.	
Qualification of Staff	No.	Min. Experience (Years)	Rate of recovery in case of non compliance											
i) Graduate Engineer	1	5	Rs.25,000/- p.m.											
ii) Graduate Engineer <b>or</b> Diploma Engineer	2 2	2 5	Rs.15,000/- p.m. Rs.15,000/- p.m.											
2	The Employer is	(1)												
	<b>The Board of Trustees, Cochin Port Trust, Cochin -9.</b>													
	Name of Authorized Representative:													
	Name : <b>Smt. M. Beena, Chairperson, Cochin Port Trust, Cochin -9.</b>													
3	The Engineer is													
	Name : <b>Shri. G.Vaidyanathan, Chief Engineer, Cochin Port Trust, Cochin -9.</b>													
	Name of Nominee is : <b>Will be notified in LoA</b>													
4	Name of Contract :- <b>RENOVATION OF GROUND FLOOR OF CFS BUILDING Tender No : T6/T-1916/2020-C</b>	(1)												
5	12 copies of Contract Agreement shall be furnished by the Contractor	(7.1)												



**Renovation of Ground floor of CFS building**

Sl. No.	Description	Reference Clause No. in GCC						
6	Tender Document and other data are available at Cochin Port web site, Government tender website and e – tendering portal. (i) www.cochinport.gov.in (ii) www.tenders.gov.in (iii) tenderwizard.com/COPT	(7.2)						
7	<p>The Intended Completion Date for the whole of the Work is <b>6 (Six) months</b> with the following milestones:</p> <table border="1" data-bbox="347 642 1149 877"> <tr> <td data-bbox="347 642 797 688">Milestone dates:</td> <td data-bbox="797 642 1149 688"></td> </tr> <tr> <td data-bbox="347 688 797 800">Physical Works to be completed</td> <td data-bbox="797 688 1149 800">Period from the date of commencement of Work Work</td> </tr> <tr> <td data-bbox="347 800 797 877">Works under all Parts as shown in the Price Bid</td> <td data-bbox="797 800 1149 877"><b>6 [Six] months</b></td> </tr> </table> <p>The activity wise schedule needs to be submitted by the Contractor within <b>21 days</b> of receipt of LoA from CoPT. This need to be strictly followed for the timely completion of the project.</p>	Milestone dates:		Physical Works to be completed	Period from the date of commencement of Work Work	Works under all Parts as shown in the Price Bid	<b>6 [Six] months</b>	(17, 29, 49) of GCC and Clause 10 under Section III – General Description of Work and Clause 4 Section III – Special Conditions of Contract
Milestone dates:								
Physical Works to be completed	Period from the date of commencement of Work Work							
Works under all Parts as shown in the Price Bid	<b>6 [Six] months</b>							
8	<p>The following shall form part of the Contract Document:</p> <ol style="list-style-type: none"> <li>(1) Form of Agreement</li> <li>(2) Letter of Acceptance</li> <li>(3) Bill of Quantities</li> <li>(4) Contractor’s Bid</li> <li>(5) Correspondence exchanged after the opening of the Bid and before the issue of Letter of Acceptance by which the Condition of Contract are amended, varied or modified in any way by mutual consent (to be enumerated).</li> <li>(6) Contract Data</li> <li>(7) Conditions of Contract</li> <li>(8) General Description and Special Conditions of Contract</li> <li>(9) Technical Specifications</li> <li>(10) Drawings; and</li> <li>(11) Any other documents listed in the Contract Data as forming part of the Contract.</li> </ol>	(2.3)						
9	The Contractor shall submit a Program for the Works within <b>21</b> days of date of the Letter of Acceptance.	(27)						
10	<p><b>The site possession date</b> The site will be handed over within <b>7 days</b> after issue of LoA and the site is free from encumbrances.</p>	(21)						



**Renovation of Ground floor of CFS building**

<b>Sl. No.</b>	<b>Description</b>	<b>Reference Clause No. in GCC</b>
11	The start date shall be <b>15 days</b> from the date of receipt of the Letter of Acceptance (LoA) by the Contractor.	(1)
12	The site is located inside the Ernakulam Wharf near the newly constructed Cruise Passenger terminal.	
13	The Defects Liability Period is <b>One year from the date of completion of the Work.</b>	(36)
14	The minimum insurance cover for physical property, injury and death is <b>Rs. 10 lakhs (Rupees Ten lakhs)</b> per occurrence with the number of occurrences unlimited. After each occurrence, Contractor will pay additional premium necessary to make insurance valid always.	(13)
15	The following events shall also be Compensation Events: <b>N/A</b>	(44)
16	The period between Programme updates shall be <b>60 days.</b>	(27)
17	The amount to be withheld for late submission of an updated Programme shall be <b>Rs 15,000/-</b>	(27)
18	The language of the Contract documents is <b>English.</b>	(3)
19	The law, which applies to the Contract, is the law of Union of India.	(3)
20	The currency of the Contract is <b>Indian Rupees.</b>	(46)
21	The proportion of payments retained (Retention Money) shall be 5% of the gross amount of each bill till the recovered sum amounts to 5% of the contract value or value of Work done whichever is higher.	(48)
22	The maximum amount of Liquidated Damages for the whole of the Works is <b>10%</b> of the contract price.	(49)
23	The amounts of the advance payments :	(51)
	The advance payments as applicable to the contract are: <b>NA</b>	
24	Repayment of advance payment for mobilization : <b>NA</b>	(51)
25	Repayment of advance payment for Construction and equipment: <b>NA</b>	(51)
26	Repayment of Secured Advance	(51.6)
27	The date by which “as-built” drawings are required is within <b>60 days</b> of issue of certificate of completion of whole or section of the Work, as the case may be.	(58)
28	The amount to be withheld for failing to supply “as built” drawings and/or operating and maintenance manuals by the date required is <b>Rs.25,000/-</b>	(58)
29	Schedule of Rates Applicable : DSR 2018 + 55% x 0.8768	





**Renovation of Ground floor of CFS building**

<b>Sl. No.</b>	<b>Description</b>	<b>Reference Clause No. in GCC</b>	
30	Base Rate for materials to be considered for price variation NA	(47)	
31	Permissible wastage on theoretical quantities of	(47)	
	(a) Cement		: 2%
	(b) Steel Reinforcement and structural steel sections for each diameter, section and category		: 5.99 %
	(c) Bitumen / Bitumen emulsion		: 2.5%

**SIGNATURE OF BIDDER**



**SECTION – I**

**COCHIN PORT TRUST**

**6. ANNEXURES**

<b>Sl. No.</b>	<b>Annexures</b>	<b>DESCRIPTION</b>	<b>Page No.</b>
1	1	Letter of Submission – Covering Letter	42-43
2	2	Proforma of Power- of-Attorney/Letter of Authority	44
3	3	Organization Details	45-46
4	4	Details of past experience of Bidders for similar works for Minimum Eligibility Criteria (MEC)	47
5	5	Financial Capability	48
6	6	Details of Proposed Approach & Methodology	49
7	7	Plant and Equipment Proposed for the Work	50
8	8	Declaration	51
9	9	Details of the Bidder opting for Refund of EMD through e-payment system	52
10	10	Format for Furnishing Bank information for e-payment	53
11	11	Proforma of Irrevocable Bank Guarantee for Earnest Money Deposit	54-55



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**LETTER OF SUBMISSION - COVERING LETTER**

*(ON THE LETTER HEAD OF THE BIDDER)*

Date :

To

The Chief Engineer,  
Cochin Port Trust.

Sir,

Sub: TENDER FOR “RENOVATION OF GROUND FLOOR OF CFS BUILDING”

Being duly authorized to represent and act on behalf of ..... (Hereinafter referred to as “the Bidder”) and having reviewed and fully understood all of the requirements of the Bid document and information provided, the undersigned hereby apply for the project referred above.

We are submitting our Bid enclosing the following, with the details as per the requirements of the Bid Document, for your evaluation.

- (i) Power of Attorney (**Annexure-2**)
- (ii) Cost of Tender Document in the form of DD / Pay Order / Banker’s Cheque bearing No -----dated -----, for Rs..... Issued by .....bank
- (iii) Bid Security/EMD in the form of DD / Pay Order / Banker’s Cheque bearing No -----dated -----, for Rs..... Issued by .....bank / in the form of BG as per **Annexure-11**.

We have also uploaded the following documents for online submission of Technical Bid.

- (i) Tender Document along with Addendum / Corrigendum No....., and General Conditions of Contract with Amendments in PDF format.
- (ii) Scanned copy of financial instruments towards cost of Tender Document and EMD / Bid Security
- (iii) Scanned notarized copy of Exemption Certificate towards cost of Tender Document / EMD (Bid Security) (*If applicable*)
- (iv) Organization Details (**Annexure-3**)
- (v) Details to fulfill the “Minimum Eligibility Criteria” and certificates- (**Annexure-4**)
- (vi) Average Financial turnover over the last three financial year-(**Annexure-5**)
- (vii) Detailed method statement (Technical Note)-(**Annexure- 6**)
- (viii) List of plant and equipment – (**Annexure -7**)



**Renovation of Ground floor of CFS building**

- (ix) Declaration – *Annexure -8*
- (x) Bankers Details – *Annexure-9 & 10*
- (xi) Scanned copy of Form of Bid duly signed
- (xii) Scanned copy of Partnership Deed or Memorandum and Articles of Association of the Company and Registration Certificate of the Company as the case may be.
- (xiii) Scanned notarized copies of completion certificates of similar Works
- (xiv) Scanned copies of Audited Financial statements for the last three years

**We also certify that further Bid related communication can be sent to the following e-mail IDs by CoPT:**

- (i) .....
- (ii) .....

*(furnish two nos. current active email addresses)*

**SIGNATURE OF BIDDER**



**Renovation of Ground floor of CFS building**

*Annexure-2*

**PROFORMA OF POWER- OF-ATTORNEY/LETTER OF AUTHORITY**

*(To be submitted on Non-judicial Stamp Paper of appropriate value)*

To

The Chief Engineer,  
Cochin Port Trust,  
Cochin 682009.  
Kerala, India.

Dear Sir,

We.....

..

do hereby confirm that Mr./Ms./Messrs.....  
[Insert Name and Address], whose signature is given below, is /are authorized to represent us to bid, negotiate and conclude the Agreement on our behalf with you against TENDER FOR “RENOVATION OF GROUND FLOOR OF CFS BUILDING” - Tender No. T6/T-1916/2020-C

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

Signature of the authorized person :

Name & Designation :

Yours faithfully,

Signature, name and seal of the certifying authority



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**ORGANIZATION DETAILS**

- 1) NAME OF APPLICANT :
- 2) Name of the Owner :
- 3) Address :
- 4) Telephone No. :
- 5) E-mail id [2 nos.] :
- 6) Fax No. :
- 7) Description of Applicant :  
(for e.g. General, Civil Engineering  
Contract or Joint Venture/Consortium etc.)
- 8) Registration and Classification :  
of Contractors
- 9) Name and address of bankers :
- 10) Number of years of experience :  
as a general Contractor :-
  - a) In own Country :
  - b) Internationally :
- 11) Number of years of experience :  
as a sub Contractor
- 12) Name and Address of partners or :



**Renovation of Ground floor of CFS building**

associated companies to be involved in the project and whether Parent/ Subsidiary/other

- 13) Name and address of any associates : knowledgeable in the procedures of customs, immigration and local experience in various aspect of the project etc.
- 14) Name and address of the companies/ Sub-Contractors who will be involved in the execution of Works, namely:
- 15) Name and address of companies who will be involved in the supply of bought out items
  - a) Fenders, stainless chains and accessories :
  - b) Bollards, Capstan, Remote control Quick Release Mooring systems :
- 16) Attach organization chart showing the structure of the company including names of Directors/ Key Personnel at Head Office who would be responsible for the project and a separate chart showing proposed Site Construction Organisation.

**SIGNATURE OF BIDDER**



**Renovation of Ground floor of CFS building**

**Annexure-4**

**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**DETAILS OF PAST EXPERIENCE OF BIDDERS FOR SIMILAR WORKS**  
**FOR MINIMUM ELIGIBILITY CRITERIA (MEC)**

Sl. No.	Name & Location of Project	Owner's Complete address including Telefax No. with contact Person	Value of Contract	Duration of Contract			Details of Work including major items of Work involved	Reference No. & Date of letter of intent & completion certificate enclosed
				Commencement date	Scheduled completion date	Actual completion date		
1	2	3	4	5	6	7	8	9
1	Name:  Location:	Address:  Telefax No.  Contact person:  Mobile No.						Letter of Intent No. & date:  Completion Certificate No. & date:
2	Name:  Location:	Address:  Telefax No.  Contact person:  Mobile No.						Letter of Intent No. & date:  Completion Certificate No. & date:
3	Name:  Location:	Address:  Telefax No.  Contact person:  Mobile No.						Letter of Intent No. & date:  Completion Certificate No. & date:

**Note:**

Bidder to enclose Completion Certificate issued by owner, certified by a Notary Public or equivalent certifying authority.





**Renovation of Ground floor of CFS building**

**SIGNATURE OF BIDDER**

*Annexure- 5*

**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**FINANCIAL CAPABILITY**

(A) Average Annual Turnover of the Bidder

<b>Turnover</b>			
<b>Year 1</b> [2016 – 17]	<b>Year 2</b> [2017 – 18]	<b>Year 3</b> [2018 – 19]	<b>Average of</b> <b>3 years</b>

**Instructions:**

- 1) The Bidder shall provide audited Annual Reports / Audited financial statements such as Balance Sheets and Profit & Loss Account statements as required under this Bid Document.
- 2) Annual Turnover of the Bidder shall be submitted duly verified by Chartered Accountant or Competent Authority.

**Certified by**  
**Chartered Accountant**

**SIGNATURE OF BIDDER**



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**DETAILS OF PROPOSED APPROACH & METHODOLOGY**

The Bidder shall furnish a detailed method statement (*Technical Note*) for carrying out of the Works, along with a construction programme [*Preferably in MS Project / Primavera*] showing sequence of operation and the time frame for various segments of temporary and permanent works, keeping in views the time frames given in Sl. No.7 under Section – I, 5. CONTRACT DATA.

**SIGNATURE OF BIDDER**



**Renovation of Ground floor of CFS building**

*Annexure- 7*

**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**PLANT AND EQUIPMENT PROPOSED FOR THE WORK**

Please indicate the main plant and equipment considered to be necessary and proposed to be deployed for undertaking this Work and whether this plant is ready in ownership or will be purchased or hired.

Description of equipment	Requirement No. / Capacity	Owned / leased / to be procured	Nos / Capacity	Age / Condition	Remarks (From whom to be purchased)	At what Stage of contract period the Equipment will be available

***Note:***

The equipment indicated in the above statement will form part of Contract Agreement and as such the Bidders are requested to indicate the availability of the equipment at site and at what stage of the construction period in a separate column

**SIGNATURE OF BIDDER**



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**DECLARATION**

We, M/s. .... (Name & address of the Bidder)  
hereby declare that:-

- 1) All details regarding construction plant, temporary Work and personnel for site organisation considered necessary and sufficient for the Work have been furnished in the Annexure 7 and that such plant, temporary Works and personnel for site organisation will be available at the site till the completion of the respective Work.
- 2) No conditions are incorporated in the Price Bid. In case any conditions are specified in the Price Bid, the tender will be rejected summarily without making any further reference to the Bidder.
- 3) We have not made any payment or illegal gratification to any persons/ authority connected with the Bid process so as to influence the Bid process and have not committed any offence under PC Act in connection with the Bid.
- 4) We disclose with that we have \* **made / not made** payments or propose to be made to any intermediaries (agents) etc in connection with the Bid.
- 5) We do hereby confirm that no changes have been made in the Tender Document downloaded and submitted by us for the above Bid. Port Tender Document will be treated as authentic tender and if any discrepancy is noticed at any stage between the Port's Tender Document and the one submitted by the Bidder, the Port's document shall prevail.

**SIGNATURE OF BIDDER**

**Notes:**

- (i) \* **Delete whichever is not applicable.**
- (ii) **The above Declaration shall be submitted in the Letter head**



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**DETAILS OF THE BIDDER OPTING FOR REFUND OF EMD THROUGH  
E-PAYMENT SYSTEM**

Name of the Bidder :

Bank A/c No :

Account type : (Savings / Current / Overdraft)

Bank Name :

Branch :

IFSC Code Number : (11 digit code)

Centre (Location) :

FAX No. :

E-Mail ID : (For forwarding information of remittance)

Mobile No :

**SIGNATURE OF BIDDER**



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**FORMAT FOR FURNISHING BANK INFORMATION FOR e-PAYMENT**

1	Name and full address of the beneficiary	
2	Credit Account No. (Should be full 14 digit)	
3	Account Type (SB or CA or OD)	
4	Name of the Bank	
5	Branch (Full address with telephone No.)	
6	MICR code (Should be 9 digit)	
7	Telephone/Mobile/ e-mail id [2 nos]// Fax No. of the beneficiary	Telephone :
		Mobile :
		e-mail id [2 nos. mandatory]: (i) (ii)
		Fax :
8	Enclose Cancelled Cheque	(Enclosed / Not Enclosed)

**SIGNATURE OF BIDDER**



**COCHIN PORT TRUST**

**RENOVATION OF GROUND FLOOR OF CFS BUILDING**

**PROFORMA OF IRREVOCABLE BANK GUARANTEE FOR EARNEST  
MONEY DEPOSIT**

*(To be submitted on Non-judicial Stamp Paper of appropriate value)*

B.G. No. .... dated .....

This Deed of Guarantee executed at .....by  
..... (Name of Bank) having its Head/Registered  
office at ..... (hereinafter referred to as “ the Guarantor”)  
which expression shall unless it be repugnant to the subject or context thereof include  
its executors, administrators, successors and assigns;

**In favour of**

The Board of Trustees of Cochin Port Trust (hereinafter called “the EMPLOYER”),  
having its office at Willingdon Island, Cochin – 682 009, which expression shall  
unless it be repugnant to the subject or context thereof include its executors,  
administrators, successors and assigns;

Whereas Sri..... / M/s. .... (Name of Bidder)  
..... (Composition and legal status of the Bidder) (hereinafter  
called “the Bidder”), which expression shall unless it be repugnant to the subject or  
context thereof include its executors administrators, successors and assigns, has Bid  
for the Work of “RENOVATION OF GROUND FLOOR OF CFS BUILDING” and  
Tender No. T6/T-1916/2020-C (hereinafter referred to as “the Work”).

Whereas in terms of the Tender Notice dated ..... (hereinafter referred to  
as “Tender Document”) the Bidder is required to furnish to the Port Trust an  
unconditional and irrevocable Bank Guarantee for an amount of Rs.  
.....(Rupees ..... only) as  
Earnest Money Deposit (EMD) and the Guarantor has at the request of the Bidder  
agreed to provide such Guarantee being these presents:

Now this deed witnesseth that in consideration of the premises, We,  
..... Bank hereby declare, undertake and agree as  
follows:

We as primary obligor shall, without demur, pay to the Port Trust an amount not  
exceeding Rs. .... (Rupees ..... only),  
within 5 days of receipt of a written demand from the Port Trust stating that the EMD



**Renovation of Ground floor of CFS building**

has been forfeited in terms of Clause 16.4 of the Instruction of Bidders of Tender Document. Any such demand made on us by the Port Trust shall be conclusive and absolute as regards the forfeiture of the EMD and the amount due and payable under this Guarantee.

- a) The above payment shall be made by us without any reference to the Bidder or any other person and irrespective of whether the claim of the Port Trust is disputed by the Bidder or not.
- b) This Guarantee shall remain in full force for a period of 148 days from (date)\*..... or for such extended period as may be mutually agreed between the Port Trust and the Bidder and shall continue to be enforceable till all amounts which are demanded by the Port Trust under this Guarantee are paid.
- c) In order to give full effect to this Guarantee, the EMPLOYER shall be entitled to treat the Guarantor as the principal debtor and the obligations of the Guarantor shall not be affected by any variations in the terms and conditions of the Tender Document or other documents or by extension of time of performance of any obligations by the Bidder or any postponement for any time of the powers exercisable by the EMPLOYER against the Bidder or forebear or enforce any of the terms and conditions relating to non-compliance of the Tender Document by the Bidder and we shall not be relieved from our obligations by reason of any variation or extension being granted to the Bidder or forbearance or omission on the part of the EMPLOYER or any indulgence by the EMPLOYER to the Bidder to give such matter or thing whatsoever which under the law relating to sureties would but for this provision have effect of so relieving us.
- d) This Guarantee shall be irrevocable and shall remain in full force and effect until all our obligations under this Guarantee are duly discharged.
- e) The Guarantor has power to issue this Guarantee and the undersigned is duly authorised to execute this Guarantee pursuant to the power granted under .....

In Witness whereof the Guarantor has set its hands hereunto on the day, month and year first hereinabove written.

Signed and Delivered by .....  
Bank by the hand of Shri.....  
its .....and authorised official

\* Fill in the scheduled date of submission of Bid.





**Renovation of Ground floor of CFS building**

**COCHIN PORT TRUST**

**CIVIL ENGINEERING DEPARTMENT**

**Tender No: T6/T-1916/2020-C**

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**SECTION –II**

**COCHIN PORT TRUST**

**1. GENERAL CONDITIONS OF CONTRACT - PARTS A - G**

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## **SECTION II**

**GENERAL CONDITIONS OF CONTRACT ATTACHED  
SEPARATELY**



**SECTION –II**

**COCHIN PORT TRUST**

**2. FORM OF SECURITIES (ANNEXURES A & B)**

<b>Sl. No.</b>	<b>ANNEXURES</b>	<b>DESCRIPTION</b>	<b>PAGE NO.</b>
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**PROFORMA OF BANK GUARANTEE FOR PERFORMANCE SECURITY/  
SECURITY DEPOSIT**

*(To be submitted on Non-Judicial Stamp Paper of appropriate value)*

*[The bank, as requested by the successful Bidder, shall fill in this form in accordance with the instructions indicated]*

In consideration of the Board of Trustees of the Port of Cochin incorporated by the Major Port Trusts Act, 1963 as amended by Major Port Trust (Amendment) Act 1974 (hereinafter called "The Board" which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include the Board of Trustees of the Port of Cochin, its successors and assigns) having agreed to exempt ..... (*Name of the Contractor/s*) (hereinafter called the "Contractor") from the demand under the terms and conditions of the Contract, vide Civil Engg. Department's letter No..... dated ..... made between the Contractors and the Board for execution of ..... covered under Tender No..... dated ..... (hereinafter called "the said contract") for the payment of Security Deposit in cash or Lodgement of Government Promissory Loan Notes for the due fulfilment by the said Contractors of the terms and conditions of the said Contract, on production of a Bank Guarantee for Rs..... (Rupees..... only) we, the .....(*Name of the Bank and Address*) (hereinafter referred to as "the Bank") at the request of the Contractors do hereby undertake to pay to the Board an amount not exceeding Rs..... (Rupees..... only) against any loss or damage caused to or suffered or which would be caused to or suffered by the Board by reason of any breach by the Contractors of any of the terms and conditions of the said contract.

1. We,..... (*Name of Bank*), ..... (*Name of Branch*) do hereby undertake to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Board stating that the amount claimed is due by way of loss or damage caused to or which would be caused to or suffered by the Board by reason of any breach by the Contractors of any of the terms and conditions of the said contract or by reason of the Contractors failure to perform the said contract. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to any amount not exceeding Rs..... (Rupees ..... only).

2. We, ,..... (*Name of Bank*),



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..... (*Name of Branch*), undertake to pay to the Board any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or Tribunal relating thereto our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

3. We, ,..... (*Name of Bank*), ..... (*Name of Branch*) further agree with the Board that the guarantee herein contained shall remain in full force and effect during the period that would be taken for performance of the said contract and that it shall continue to be enforceable till all the dues of the Board under or by virtue of the said contract have been fully paid and its claims satisfied or discharged or till the ..... (*Name of the user department*) of the said certifies that the terms and conditions of the said contract have been fully and properly carried out by the said Contractors and accordingly discharge this guarantee. PROVIDED HOWEVER that the Bank shall be the request of the Board but at the cost of the Contractors, renew or extend this guarantee for such further period or periods as the Board may require from time to time.

4. We, ,..... (*Name of Bank*), ..... (*Name of Branch*) further agree with the Board that the Board shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said contract or to extend the time of performance by the said contract or to extend the time of performance by the said Contractors from time to time or to postpone for any time or from time to time any of the powers exercisable by the Board against the said Contractors and to forebear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variation or extensions being granted to be Contractors or for any forbearance, act or omission on the part of the Board or any indulgence shown by the Board to the Contractors or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

5. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

6. It is also hereby agreed that the Courts in [insert city] would have exclusive jurisdiction in respect of claims, if any, under this Guarantee.

7. We, ,..... (*Name of Bank*), lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Board in writing.

8. Notwithstanding anything contained herein :

- a) Our liability under this Bank Guarantee shall not exceed Rs..... (Rupees .....only);



**Renovation of Ground floor of CFS building**

- b) This Bank Guarantee shall be valid upto .....\*.....; and
- c) We are liable to pay the guarantee amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before ..... (*Date of expiry of Guarantee*)."

Date ..... day of ..... 20.....

For (Name of Bank)

(Name)

Signature

\* The date will be 30 (thirty)days after the end of the period of Defect Liability as specified in the Contract.



**PROFORMA OF BANK GUARANTEE FOR ADVANCE**

*(To be submitted on Non-Judicial Stamp Paper of appropriate value)*

Bank Guarantee No. .... Dated .....

Amount of Guarantee Rs. ....

Guarantee cover from ..... to .....

Last date of lodgment of claim :.....

In consideration of Board of Trustees of Cochin Port Trust (hereinafter called “Port Trust”) which expression shall include all their successors and assignees having agreed to pay advance of Rs. .... (Rupees ..... only) repayable with interest @ ..... % per annum to ..... (*Name & Address of Contractor*) (hereinafter called the “CONTRACTOR”) which expression shall include their successors and assignees for the contract for the Work of ..... (*Name of Work*) evidenced by the offer of the Contractor dated ..... and accepted by the Port Trust forming the contract and the Work order No..... dated,..... for the Work of .....(*Name of Work*) issued by the Port Trust and the formal stamped Agreement to be entered into between parties in the above, the said amount and interest being recoverable from the running bills of the Contractor on pro-rata basis as per terms of Agreement, we (Name of Bank) having our Head office at ..... (hereinafter referred to as “the Bank”) do hereby undertake to pay The Cochin Port Trust an amount of Rs..... (Rupees.....only) with interest against any loss or damage caused to or would be caused to or suffered by the Port Trust by reason of any breach by the said Contractor of any of the terms or conditions contained in the said Agreement, making it impossible or difficult to recover the said mobilization advance of Rs..... (Rupees.....only) or part thereof or interest thereon we (Name of the Bank)do hereby undertake to pay the amounts due and payable under the guarantee without any demur, merely on demand of The Cochin Port Trust by reason of any breach by the said Contractor of any of the terms and conditions contained in the said Agreement or by the reason of Contractor’s failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive not only as regards to Contractor’s failure but also as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee will be restricted to an amount of Rs..... (Rupees..... only) with interest as per the Agreement.





**Renovation of Ground floor of CFS building**

We, ..... (*Name of the Bank*) further agree the guarantee herein contained will remain in full force and affect during the period that would be taken for the recovery of the loan and that it shall continue to be live and enforceable till all the amounts due with interest thereon have been fully recovered and its claims satisfied or discharged or till The Cochin Port Trust certifies that the amount outstanding under the advance has been fully recovered from the Contractor and accordingly discharged the guarantees. Unless a demand or claim under this guarantee is made on us in writing on or before (date of the expiry) we shall be discharged from all liability under this guarantee thereafter.

We, (Name of the Bank) further agree with the Port Trust that the Port Trust shall have the fullest liberty without or consent and without affecting in any manner or obligation hereunder to vary any of the terms and conditions regarding the recovery or repayment and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or any forbearance, act or omission on the part of Cochin Port Trust or any indulgence by the Port Trust to the Contractor or in such matter or things whatsoever which under the law relating to sureties would but for this provision have the effect of so relieving us.

Notwithstanding anything contained herein:

- (i) Our liability under this bank guarantee shall not exceed Rs.....  
(Rupees.....)
- (ii) This bank guarantee shall be valid upto .....
- (iii) Our liability to make payment shall arise and we are liable to pay the guaranteed amount or any part thereof under this guarantee, only if you serve upon us a written claim or demand in terms of this guarantee on or before .....

We, ..... (*Name of the Bank*) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Port Trust in writing.

Dated this the.....day of.....(*Year*)

For ..... (*Name of Bank*)

(Signature)



**Renovation of Ground floor of CFS building**

**COCHIN PORT TRUST  
CIVIL ENGINEERING DEPARTMENT**

**Tender No: T6/T-1916/2020-C**

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**SECTION –III**

**COCHIN PORT TRUST**

**1. GENERAL DESCRIPTION OF WORK**

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## **SECTION – III**

### **COCHIN PORT TRUST**

#### **1. GENERAL DESCRIPTION OF WORK**

##### **1. General**

Where it is mentioned in the Specifications that the Contractor shall perform certain Work or provide certain facilities, it is understood that the Contractor shall do so at his own Cost.

The materials, design and Workmanship shall satisfy the relevant Indian Standard, the Specification and conditioned herein referred to. Where the Specifications stipulate requirement in addition to those contained in the Standard codes and Specifications, these additional requirements shall also be satisfied.

##### **1.1 Definitions**

“Contract” means the Agreement entered into between the Employer and the Contractor, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein;

“Contract Price” means the price payable to the Contractor under the Contract for the full and proper performance of its contractual obligations;

“Employer / Client” means Cochin Port Trust, the Organization purchasing the Works and Services.

“Contractor” means the individual or firm supplying the Works and Services under this Contract.

“Engineer-in-Charge” means the Nominee/Representative of the Employer/Consultant authorized to give instruction to the Contractor during the various stages of the execution of the Work.

##### **2. Scope of Work**

##### **2.1 This Work essentially comprises of**

- (i) Development of Parking area for the new Cruise Terminal
- (ii) Various dismantling works;
- (iii) Plain and Reinforced Cement Concrete works
- (iv) Filling with excavated earth and 6mm metal mixed with quarry dust;
- (v) Precast Cement Concrete Masonry work;
- (vi) Flooring with vitrified/ ceramic flooring tiles & dadoing with glazed tiles;



## **Renovation of Ground floor of CFS building**

- (vii) Painting work with cement primer, Acrylic emulsion paint, Synthetic Enamel paint etc.;
- (viii) Wood work;
- (ix) Steel work welded in built up sections;
- (x) Providing and fixing FRP doors;
- (xi) Fabricating and fixing Aluminium doors, windows & ventilators;
- (xii) Providing and fixing European Type water closets, Waal urinals, Wash basins etc.
- (xiii) Pipe line work with PVC pipes;

2.2 The Scope of Work includes but is not limited to the following:

- (i) Development of Parking area for the new Cruise Terminal
- (ii) Various dismantling works;
- (iii) Plain and Reinforced Cement Concrete works
- (iv) Filling with excavated earth and 6mm metal mixed with quarry dust;
- (v) Precast Cement Concrete Masonry work;
- (vi) Flooring with vitrified/ ceramic flooring tiles & dadoing with glazed tiles;
- (vii) Painting work with cement primer, Acrylic emulsion paint, Synthetic Enamel paint etc.;
- (viii) Wood work;
- (ix) Steel work welded in built up sections;
- (x) Providing and fixing FRP doors;
- (xi) Fabricating and fixing Aluminium doors, windows & ventilators;
- (xii) Providing and fixing European Type water closets, Waal urinals, Wash basins etc.
- (xiii) Pipe line work with PVC pipes;

### **3. Site Conditions**

#### **3.1 Location**

The location of the work is inside Container Freight Station of Cochin Port Trust. It is a protected area of Cochin Port Trust and hence security rules and regulations including obtaining entry/ exit passes, photo passes if any for vehicles, men & material etc. for taking in and out the area shall be observed by the contractor at his cost.

#### **3.2 Reference Level**



## **Renovation of Ground floor of CFS building**

All the levels indicated in the drawings and/or specifications are with reference to Port Chart Datum, which is at 0.582 m below Mean Sea Level. The Contractor shall establish reference benchmarks at suitable spots. The maintenance of these reference benchmarks will be the responsibility of the Contractor for which no payment will be made.

The Bidders shall make their own arrangements for inspecting the area and satisfying themselves regarding the water depth available in this area. However, the sounding chart in the location of the berth is enclosed for reference.

### **3.3 Tide and Flood Levels**

The tides at Cochin are semi-diurnal with a marked daily inequality. The Contractor shall carefully investigate the records of all past states of tides and flood and shall be held to have satisfied himself on all the tide and flood levels likely to prevail during the period of contract so far as it may affect the Work.

The various tidal levels in the area as per Naval Hydrographic Chart No.2004 are as indicated below for the general guidance to the Bidder.

<u>Tide</u>	<u>Levels with reference to Port Chart datum</u> (in metres)
Highest High Water Level	: +1.20m
Mean High Water Spring (MHWS)	: +0.92m
Mean Low Water Spring (MLWS)	: +0.80m
Mean Sea Level (MSL)	: +0.582m
Mean High Water Neap (MHWN)	: +0.60m
Mean Low Water Neap (MLWN)	: +0.30m
Lowest Low Water Level	: +0.20m

### **3.4 Wind**

Wind at Cochin is highly influenced by the land and sea breezes. Wind direction changes from north-east during morning hours to west during evening for the period of October to May. During peak of south-west monsoon, especially from June to September, predominant wind direction remains south-west both during morning and evening hours. Due to strong monsoon winds, effect of land winds is not dominant during south-west monsoon. During the non-monsoon periods, the predominant wind direction is from north east during the morning and west during the evening which shows influence of land breeze.

### **3.5 Rainfall**

The climate is characterized by dry and wet seasons. The wet seasons starts in late May and ends in November. During this period, two monsoons pass by one after another. The major monsoon is south-west monsoon which lasts from



## **Renovation of Ground floor of CFS building**

June to September. This is followed by north-east monsoon during October and November. The average annual rainfall is about 3000mm; and the major portion is during south-west monsoon.

### **3.6 Temperature**

Cochin experiences moderate temperatures throughout the year. The temperature varies from 22°C to 34°C. The low temperature occurs during the southwest monsoon, December and January. Daytime temperature goes upto 30°C even during this period. The hot months are from March to May.

### **4. Drawings**

The drawings enclosed with the Tender Document are to provide some idea of the job only and are preliminary and for tender purpose and are by no means complete and final and do not show the full range of the Work under the scope of the contract. Work shall be carried out only on the basis of drawings marked “Issued for Construction” with addition, alteration, modifications, if any made to aforesaid drawings as required from time to time and also according to other drawings that would be supplied to the Contractor from time to time

### **5. Time Schedule and monitoring of progress**

5.1 Bidder shall prepare and attach with the tender a detailed Work schedule [preferably in MS Project / Primavera] indicating key activities; Milestones and critical items for completing the Work within the stipulated contract period. This time schedule forms the basis for monitoring the progress of Work. Issue of Working drawings by the department will be regulated as per the time schedule approved by the department.

5.2 The Contractor shall furnish to the Engineer-in-Charge monthly progress reports of the Work during execution in the approved proforma indicating delay, if any, its reason and proposal to cover up the delay

### **6. Facilities to be provided by the Port**

#### **6.1 Contractor’s Work area:**

Land will be made available to the Contractor to the possible extent, free of rent for setting up site office, store, stacking construction materials, tools etc., adjacent to the Work site for the duration of the Contract. The site shall be cleared or leveled, if so required by the Contractor, at his cost.

#### **6.2 Power**

Electric power required for the Work can be supplied by the department from the nearest existing line of the Port Trust at prevailing rates. The cost of drawing temporary lines/ cables/ providing switches and making connection and metering arrangements etc, shall be borne by the Contractor. If there is any disruption in the power supply due to supply failure/ restrictions imposed by the Kerala State Electricity Board, the department shall not be held responsible and the Contractor has to make suitable alternative arrangements at their cost.



## **Renovation of Ground floor of CFS building**

### **7. Contractor's responsibility**

- 7.1 All materials for use on the Works shall be supplied and provided by the Contractor at his own cost and shall conform to relevant BIS Specification unless otherwise specified.
- 7.2 Samples of all materials including fixtures, if any, to be incorporated in the Work shall be got approved by the Engineer-in-Charge before procurement.
- 7.3 The Contractor shall thoroughly study the specifications and drawings and errors/omissions/modifications if any shall be brought to the notice of the Engineer-in-Charge well in advance so that a final decision in the matter could be given in time.
- 7.4 All labour, skilled or unskilled shall be provided by the Contractor. Settling any dispute with the labour will be Contractor's responsibility.
- 7.5 The Contractor shall be solely responsible for any damage or injury to the persons or things caused or suffered during the execution of the Work and these shall be made good or compensated at his risk & cost.
- 7.6 The Contractor shall ensure valid Insurance Policy as per Contract Document is available at all times.
- 7.7 Necessary proof for compliance with the Workmen Compensation Act covering all workmen at the site as per Contract Document shall be made available at all times by the Contractor.
- 7.8 The Contractor shall take all care and precautionary measures for avoiding any kind of damage/accident in the Work site on any account. The department shall not entertain any claim from the Contractor whatsoever towards compensation for any damage/accidents at the site due to negligence from his part, during the execution of Work.
- 7.9 The Contractor shall prior to commencement of the Work insure in the joint names of the Employer and the Contractor against all loss or damage from whatever cause arising for which he is responsible under the terms of contract.
- 7.10 The Work shall be arranged by the Contractor without causing any damage to Port's/ any other structures. Any damage caused by the Contractor's operation shall be compensated/ made good at Contractor's risk and cost to the satisfaction of the Engineer-in-Charge of the Works, failing which department will do the rectification work and the cost incurred will be recovered from any sum due to him from the Port.
- 7.11 All plants and equipments and consumables required for the whole Work shall be provided by the Contractor at his own cost.
- 7.12 The Contractor shall not construct any structure, even of temporary nature, for any purpose at site, except with the written permission of the Engineer-in-Charge of the Work and any construction so put up shall be removed by the Contractor whenever the Engineer-in-Charge calls upon the Contractor to do so.





### Renovation of Ground floor of CFS building

- 7.13 The Contractor shall be responsible for the true and proper setting out of the Works in relation to original points, lines and levels of reference given by the Engineer-in-charge and for the correctness of the position, levels, dimensions and alignment of all parts of the Works and for the provision of all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of Work any error shall appear or arrive in the position, levels, dimensions or alignment of any part of the Works, the Contractor on being required to do so by the Engineer-in-Charge shall, at his own cost, rectify such error to the satisfaction of the Engineer-in-Charge, unless such error is based on incorrect data supplied by the Engineer-in-Charge, in which case the expense of rectifying the same shall be borne by the department. The checking of any setting out or of any line or level by the Engineer-in-charge shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all bench marks, pegs, other things used in setting out the Work and measurement purpose.
- 7.14 The site shall be cleared off the debris, rubbish, dried leaves, plastic bags etc. and waste materials shall be conveyed and deposited at a place within a distance of 2 kms as pointed out by the Engineer-in-Charge and leveled properly as per his directions.
- 7.15 Qualified Engineers with sufficient experience in Works of similar nature shall be available at site throughout the contract period during Working hours in order to receive instructions from department and to implement them properly and in time.
- 7.16 The Contractor shall take all care and precautionary measures for avoiding damage or accidents to the Work from ship or other water crafts movements or from vehicular movements or other operations in the area. The department will not entertain any claim from the Contractor whatsoever, towards compensation for any such damage or accident occurring during the execution of the contract.
- 7.17 The Contractor shall observe all safety regulations during the execution of the Work. Safety measures, precautions, barricades, warning signals etc. shall be done at the Contractor's cost as directed by the Engineer-in-Charge of the Work. **The Contractor shall provide all necessary personnel protection equipments such as helmet, lifeguard, goggles, boots etc. to the Workmen at his own risk and cost. It shall be the Contractor's responsibility to ensure that the workmen make use of the personnel protection equipments during the execution of the Work.**
- 7.18 The Contractor shall ensure that valid Load Test Certificate and Annual thorough Inspection Report issued by the competent persons are available before usage of any mechanical lifting equipment in construction Work. The Contractor shall also ensure that Test load indicator shall be available in the operator's cabin and all the safety devices such as overload trip shall be functional.



### Renovation of Ground floor of CFS building

- 7.19 The Work shall be arranged by the Contractor without causing any hindrance to the vehicular traffic in the area. No damage shall be caused to the structures in the area, water crafts operating in the area or otherwise by the Contractor's operations. Any damage or accident caused by the Contractor's operations shall be compensated / made good at the Contractor's risk and cost.
- 7.20 The Contractor shall supply at his own cost monthly or at intervals as directed by the Engineer-in-charge, well executed photographs in standard size (approximately 24x18 cm) showing the progress of the Work and also such other particular item of the Work.
- 7.21 The Contractor shall also throughout the Contract Period erect banners of size 240 cm x 90 cm to display the matter which will be given by the Engineer-in-Charge.
- 7.22 No information or photograph concerning the Works shall be published without the prior permission of the Chief Engineer and drafts of all such proposal/publication shall be submitted for approval.
- 7.23 The information and data shown in the drawing and detailed elsewhere in the Tender Document are furnished for general information and guidance only and the Port Trust in no case will be held responsible for the strict accuracy thereof or any deduction, interpretation or conclusion drawn by the Bidder.
- 7.24 The Contractor shall observe the conservancy rules relating to the Port and shall always take necessary steps to keep the Port water free of noxious or unhygienic matter due to the Work, as are required by the Engineer-in-Charge. Under no circumstances, inflammable materials be allowed to spill into Port waters.
- 7.25 The Contractor will have to provide a site office accommodation measuring a minimum of **40m<sup>2</sup>** with toilet facilities, near the Contractor's Work area or other location as approved by the Engineer-in-Charge, for the use of departmental staff within 15 days of the work order which shall be maintained till completion of Work. Arrangements for fresh water supply and power supply to the office building shall be made by the Contractor. Necessary fans and lights shall be provided.
- No separate payment shall be made for providing the office as said above and it shall be included in the rate quoted for the Work. In case the Contractor fails to hand over the furnished office within the above period and / or fails to maintain the office for the stipulated period, an amount of **Rs.50,000/- per month** or part thereof shall be deducted from the Contractor's running bills, for the period of delay/ lapse. In case the Contractor is proposed to provide Porta cabins for site office accommodation it shall be air-conditioned. On completion of the Work, the office accommodation provided by the Contractor shall be disposed off by the Contractor.
- 7.26 The Contractor shall provide at his own cost 1 No. AC Indica Car or equivalent type of vehicle with 4 persons capacity, at his own cost, exclusively for the

- departmental staff for supervision works, throughout the contract period including extended contract period, if any. The supply shall commence not later than 15 days from the date of commencement of Work. The vehicle shall be available round the clock on all days including Sundays and holidays. The vehicle shall have valid registration and insurance. All consumables and stores for the safe Working of the vehicle and its operators as necessary should be provided by the Contractor and nothing will be given by the Port for the running of the vehicle under this contract. The Contractor shall be solely responsible for the consequences arising out of any loss or damage/accident etc. caused to the vehicle on duty. If the Contractor fails to provide vehicle as above, the department will hire the same, the actual cost of which will be deducted from the Contractor's bills or an amount of **Rs.5,000/- per day** or part thereof shall be deducted from the Contractor's running bills. If the Contract Works are not completed within the stipulated period or within the granted extended time of completion, the vehicle facility shall be maintained by the Contractor at his own cost till the completion of the Work. In case of any failure by the Contractor to do so, an amount of Rs.5,000/- per car per day or part thereof shall be debited to the Contractor's account.
- 7.27 The Contractor shall provide necessary arrangements for transportation and other requirements, as desired by the Engineer-in-Charge, for inspection of Work without any extra cost from commencement till completion of Work.
- 7.28 The Contractor shall ensure that no labourers with criminal background are engaged for the Work.
- 7.29 All fossils, coins, articles of value or antiques and structures and other remains or things of geological or archaeological interest discovered in the site of Work shall be deemed to be the absolute property of the Port Trust and the Contractor shall take responsible precautions to prevent his Workmen or any other persons from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal, acquaint the departmental officers of such recovery and carry out at the expense of the department, the Engineer-in-Charge's orders as to the disposal of the same.
- 7.30 The Contractor shall remove any plant (floating or otherwise) belonging to him or to any person employed by him which might have sunk in the course of Work or otherwise deal with the same as directed by the Engineer-in-Charge and until the same is raised and removed, the Contractor shall set on such buoys and display at night such lights for avoiding any mishaps.
- 7.31 **Water required for the entire construction works including curing work shall be arranged by the Contractor on his own cost.**
- 7.32 The Contractor shall take all precautions for not to damage any cables/pipes etc. passing through the area of Work and if any damage is caused by him, the same shall be rectified at his own risk and cost.



### Renovation of Ground floor of CFS building

- 7.33 While carrying out hot works such as welding, cutting, chipping the concrete etc., the Contractor shall take all precautions to not damage the KWA pipeline and the supports and if any damage is caused by him, the same shall be rectified at his own risk and cost in consultation with the KWA authorities and any charge to be paid shall be borne by the Contractor and all the issues with KWA shall be dealt by the Contractor.
- 7.34 The Contractor shall remove all materials brought to work site / stacked at the work site or anywhere else within the Port area and clear the site at his cost to the full satisfaction of the Engineer-in-Charge before the site is returned to the Port Trust. All such materials including debris, tools & plants etc. shall be disposed off to any place as pointed out by the Engineer-in-Charge or be taken away from the location and shall be cleared in every respect and to reinstate to its original condition at no extra cost to the Port Trust immediately after completion of the Work. In case, any such material is found left in the work site or anywhere in the Port area, rent for the storage space occupied by the Contractor, either for stacking the materials /debris or for areas used for such purpose but not cleared thereafter, will be recovered as per the prevailing Scale of Rates of Cochin Port Trust, for the rent applicable for open storage space for commercial purpose, for the period for which the area had been occupied by the Contractor. In addition to the above, in case the Port requires the area immediately for its use, Port will repossess the land after restoring it to its original condition, material will be confiscated and disposed off at the risk and cost of the Contractor, after issuing two notices giving 15 days' time each for removing the material. All expenses incurred on this shall be recovered by disposing off the material if any confiscated. If any balance amount still remains to be realized that will be recovered from the Contractor by appropriate means.
- 7.35 **The Contractor shall extend all facilitations and cooperation for other Contractors for simultaneous execution of other Works in the area entrusted by Cochin Port Trust. The security cabin will be supplied and installed by another agency and all assistance required, if any, for the installation of the above item, shall be provided by the Contractor at no extra cost.**



## Renovation of Ground floor of CFS building

7.36 The Contractor shall provide, at every work place, at which 20 or more women Workers are ordinarily employed, crèches of reasonable size and with adequate facility for the use of their children under at the age of six years at his risk and cost.

### **8. Workmanship**

8.1 All the works shall be done strictly according to relevant B.I.S. specifications unless otherwise specified.

8.2 The whole work shall be completed in a diligent manner within the contract period and defect or imperfection if any, observed during the defect liability period/ guarantee period, shall be rectified at Contractor's cost to the full satisfaction of the Engineer-in-Charge within the time allowed.

8.3 The Work shall be arranged in the order of preference as directed by the Engineer-in-Charge of Work.

8.4 **In addition to above, Contractor shall submit a Quality Assurance Plan (QAP) for the Work and it shall be approved by the Engineer-in-Charge before commencing the Work and shall be ensured strict compliance of the same. The QAP shall contain the details of tests to be conducted for each material to be used in the Work.**

### **9. Temporary Works**

9.1 All scaffolding, staging, bracing and other temporary works required for proper execution of the works, shall be provided by the Contractor at his own cost, unless stated otherwise and that should be inclusive of all materials, labour, supervision and other facilities. The layout and details of such temporary Works shall have prior approval of the Engineer-in-Charge, but the Contractor shall be responsible for proper strength and safety of the same. All temporary works shall be so constructed as not to interfere with any permanent work or with the work of other agencies. If it is necessary to remove any of the temporary works at any time to facilitate execution of works or work by other agencies, such removal and re erection, if required, shall be carried out by the Contractor at the direction of Engineer-in-Charge without any delay and any extra cost on this account shall be borne by the Contractor.

9.2 On completion of the works, temporary works if any provided by the Contractor shall be removed from the site and the area shall be reinstated to the original condition at his own risk and cost.

### **10. Time for Completion**

10.1 The time allowed for carrying out the Work as mentioned in the Memorandum and Contract Data (Sl. No.7) shall be strictly observed by the Contractor. The Work shall throughout the time period be proceeded with diligence, time being deemed to be the essence of the contract.

10.2 The completion of Work may entail working in monsoon period/rainy season without any extra cost. The Contractor shall take such an eventuality into



## **Renovation of Ground floor of CFS building**

consideration while quoting for the Work. Normally, no extension of time will be admissible for work in monsoon.

- 10.3 The whole work as well as the works under Parts A to F shall be completed within the respective stipulated times, accordance with the provisions under Memorandum included under “Form of Tender” and Contract Data (Sl. No.7) or such extended time as may be allowed under clause 29 of Conditions of Contract included in the GCC.

### **11. Working time**

The normal working time of the Port Trust is from 8 a.m. to 4.00 p.m. on all working days with no interval in between. If the Contractor wishes to carry out the work beyond normal working hours and or on holidays, he should get specific approval from the Engineer-in-Charge for the same. Necessary supervision will be arranged by the department and the expenditure to be incurred in this connection will be borne by the department.

### **12. Method of Execution**

- 12.1 The Contractor shall clearly indicate in their tender the method proposed by them for executing the various items of works. During the actual execution of the works if modifications or changes in the method of execution of work is found necessary the Contractor shall obtain approval from the Engineer-in-charge of Work for such modifications or changes in the method. No claim from the Contractor for additional payment shall be entertained by the department on the above account.
- 12.2 The detailed list of equipment/machineries/tools & plants proposed to be mobilized for the deployment in the Work as furnished as per *Annexure – 7* of Section I and method of execution furnished under clause above, are considered only for the technical appreciation of the proposal of the Contractor and it shall not relieve the Contractor of his responsibility of executing the Work with the quality specified in the tender and any discrepancy occurs, the construction procedures detailed/specified in the tender will prevail. In case, any additional equipment are required to be mobilised than those listed in the TENDER FOR deployment in the Work, it shall be arranged and the Work executed as per the tender specifications without any extra cost to the Department.

### **13. Alterations and Additions**

The Employer shall have power and authority from time to time and at all times to make amendments or additions or alternations or changes in the scope of the Work, and specifications, drawings and bill of quantities and give such further instructions and directions as may appear to the Employer necessary and proper for the guidance of the Contractor and the good and efficient execution of the Works and the Contractor shall receive, obey and be bound by the same according to the true intent and meaning thereof as if the same had been mentioned or referred to in the scope of the Work, specifications, Bill of Quantities and Schedules and drawings. The Employer



### **Renovation of Ground floor of CFS building**

may also vary or alter the lines, levels or positions of any of the Works contemplated or may order any of the Works contemplated thereby to be omitted, with or without the substitution of any other Works in lieu thereof, or may order any Work or any portion of Works executed or partially executed to be removed, changed or altered, if required, and may order that other Work shall be substituted in lieu thereof and any difference in the cost occasioned by any such diminution or alteration so ordered and directed shall be added to or deducted from the Contract Price based on rates available in the contract or where the rates are not specified a suitable rate backed up by rate analysis shall be submitted by the Contractor and agreed upon between the Contractor and the Employer. In the event of disagreement, the Employer shall fix such rates or prices as shall in their opinion, be reasonable and proper having regard to the circumstances. The Contractor shall give to the Employer before the tenth day of every month, a statement in writing of any extra Work which he may have performed during the preceding month, failing which any claim for which he may afterwards make for payment on account of any such extra Work will not be allowed.

**SIGNATURE OF BIDDER**



**SECTION –III**

**COCHIN PORT TRUST**

**2. SPECIAL CONDITIONS OF CONTRACT**

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## SECTION –III

### COCHIN PORT TRUST

#### 2. SPECIAL CONDITIONS OF CONTRACT

##### 1. General:

- 1.1 Special Conditions shall be read in conjunction with the General Conditions of Contract, Specifications, Drawings and any other document forming part of this Contract wherever the context so requires.
- 1.2 Notwithstanding the sub-division of the documents into these separate section and volume every part of each shall be deemed to be supplementary to and complementary of every other part and shall be read with and into the Contract so far as it may be practicable to do so.
- 1.3 Where any portion of the General Conditions of Contract (GCC) is repugnant to or at variance with any provision of the Special Conditions, the provisions of the Special Conditions shall be deemed to over-ride the provisions of the General Conditions of Contract and shall to the extent of such repugnancy of variations, prevail.

##### 2. Rates for Various Items:

- 2.1 The rates /lumpsum amount as applicable shall except in so far as the contract otherwise provides, cover all obligations of the Contractor under this contract and all matters and things necessary for the proper completion and maintenance of the Works. The rates / lumpsum amount quoted for each item shall be all inclusive value of the finished Work as per drawings and specifications and shall cover the cost of all constructional plants, temporary Works, appliances, materials, both for the Works and temporary Works, labour and all other matter in connection with each item quoted for and shall be in multiples of ten paise.
- 2.2 The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his TENDER FOR the Works and of the rates and prices stated in the Schedule of Quantities.
- 2.3 The Contractor's rates and prices shall include all taxes, duties and fees including Port charges like wharfage, Port dues, berth hire, pilotage etc. if any applicable, all charges and taxes whatsoever excluding Goods and Service Tax (GST) in respect of materials, labour and plant and all other things obtained or used by the Contractor for the execution and maintenance of the Works or any temporary Works and also considering the base rates indicated in Sl. No.31 of Contract Data.

##### 3. Measurements of Work Done:

- 3.1 In addition to the Clause-26 of GCC- 'Computerised Measurement Book', measurement of the Work can also be done as detailed below:



### **Renovation of Ground floor of CFS building**

- 3.2 Executive Engineer (hereinafter called the Engineer's Nominee) shall, except as otherwise provided, ascertain and determine by measurement the value in accordance with the Contract of Work done.
- 3.3 All measurement of all items having financial value shall be entered in Measurement Book and/or level field book so that a complete record is obtained of all Works performed under the Contract.
- 3.4 All measurements and levels shall be taken jointly by the Engineer's Nominee or his authorised representative and by the Contractor or his authorised representative from time to time during the progress of the Work and such measurements shall be signed and dated by the Engineer's Nominee and the Contractor or their representatives in token of their acceptance. If the Contractor objects to any of the measurements recorded, a note shall be made to that effect with reason and signed by both the parties.
- 3.5 Department shall not entertain any claim from Contractor for any loss or damages on this account. If the Contractor or his authorised representative does not remain present at the time of such measurements after the Contractor or his authorised representative has been given a notice in writing three (3) days in advance or fails to countersign or to record objection within a week from the date of the measurement, then such measurements recorded in his absence by the Engineer's Nominee or his representative shall be deemed to be accepted by the Contractor.
- 3.6 The Contractor shall, without extra charge, provide all assistance with every appliance, labour and other things necessary for measurements and recording levels.
- 3.7 Except where any general or detailed description of the Work expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items which are not covered by specifications, measurements shall be taken in accordance with the relevant standard method of measurement issued by the Bureau of Indian Standards and if for any item no such standard is available then a mutually agreed method shall be followed.
- 3.8 The Contractor shall give not less than seven days' notice to the Engineer's Nominee or his authorised representative in charge of the Work before covering up or otherwise placing beyond the reach of measurement any Work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up or placed beyond the reach of measurement and shall not cover up and place beyond reach of measurement any Work without consent in writing of the Engineer's Nominee or his authorised representative in charge of the Work who shall within the aforesaid period of seven days inspect the Work, and if any Work shall be covered up or placed beyond the reach of measurements without such notice having been given or the Engineer's Nominee's consent being obtained in writing the same



## **Renovation of Ground floor of CFS building**

shall be uncovered at the Contractor's expense, or in default thereof no payment or allowance shall be made for such Work or the materials with which the same was executed.

- 3.9 Engineer's Nominee or his authorised representative may cause either themselves or through another officer of the department to check the measurements recorded jointly or otherwise as aforesaid and all provisions stipulated herein above shall be applicable to such checking of measurements or levels.
- 3.10 It is also a term of this Contract that recording of measurements of any item of Work in the measurement book and/or its payment in the interim, on account or final bill shall not be considered as conclusive evidence as to the sufficiency of any Work or material to which it relates nor shall it relieve the Contractor from liabilities from any over measurement or defects noticed till completion of the defects liability period.

### **4. Liquidated Damages**

- 4.1 The items of work involved shall be completed within the periods indicated as below, failing which LD shall be levied.

**(a) All Parts as stipulated in the Price Bid, have to be completed within a period of 6 months from the date of commencement of work.**

- 4.2 In case of delay in completion of Parts as indicated above, LD shall be levied and collected as per clause 49 of GCC for the specific parts as indicated above. However, the ceiling on the amount of LD payable by the Contractor, whether per Part or the whole of the Works, shall not exceed 10 (ten) percentage of the contract price for the whole of the Works.
- 4.3 However, the Engineer-in-Charge may, by prior written notice to the Contractor, change the priority of the dates for completion of any Parts or parts of the works comprised in the respective Parts of the Works. The Contractor shall be required to adhere to such changes at no extra cost.
- 4.4 For levying LD as per Clause-49 of General Conditions of Contract, the employer is not required to have documentary evidence to quantify or prove the losses suffered by the Employer due to delay in completion of Work by the Contractor, as per Agreement conditions.

### **5. Care of Works**

From the commencement to the completion of the Work the Contractor shall take full responsibility for the care of the Work and his employees in connection with the Work thereof and in case any damage, loss or injury shall happen to the Works or any part thereof or to any temporary Work from any cause whatsoever (save and except the excepted risks as defined in clause 12.2 of General Conditions of Contract) shall at his own cost repair and make good the same so that the Work shall be completed in good order and in conformity in every respect with requirement of the contract. In the event of any such



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damage, loss or injury happening from any of the excepted risks, the Contractor shall if and to the extent required by the Engineer-in-Charge, make good the same as aforesaid and it will be to the account of the Board.

### **6. Insurance of Works**

6.1 The insurance cover for the loss of or damage to the Works, plant, materials and equipment stated in the clause 13 of GCC shall be as follows:

- a) The insurance cover for the Works for the time being executed to the estimated current contract value thereof plus 10(ten) percent thereon to allow any additional costs and professional fees resulting from the loss or damage.
- b) The constructional plant and other things brought on to the site by the Contractor to the replacement value of such constructional plant and other things.

6.2 It shall be the responsibility of the Contractor to notify the insurer of any change in the nature and extent of the Works and to ensure the adequacy of the insurance cover at all times in accordance with the provisions of this clause.

### **7. Payments of Salary / Wages and Other Benefits etc. to Contract / Casual Workers**

7.1 *The Contractors shall make all payments of salary/wages and other benefits etc. to the contract / casual Workers deployed for the Work through Bank / Cheque only.*

7.2 *All the payments to the Contractors would be released only on submission of undertaking to comply with the clause 7.1. above.*

### **8. Modifications to General Conditions of Contract (GCC)**

**The following clauses of GCC shall be replaced and modified as below.**

#### **1. Definitions**

The following Definitions are modified as given below:

The **Completion Date** is the date of completion of the Works as certified by the Engineer or his nominee in accordance with Sub Clause **56.1**

**Market Rate** is the rate as decided by the Engineer on the basis of the cost of materials and labour at the site where the Work is to be executed plus **15%** to cover all overheads and profits.

#### **25. Settlement of Disputes and Arbitration**

Clauses 25 shall be replaced by the following:

The settlement of disputes and arbitration shall be as per clause 25 of General Conditions of Contracts. However the venue of the arbitration shall be at Cochin.

##### **25.1 General**

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design,

drawings and instructions here-in before mentioned and as to the quality of Workmanship or materials used on the Work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the Works or the execution or failure to execute the same whether arising during the progress of the Work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:-

If the Contractor considers any Work demanded of him to be outside the requirements of the contract, or disputes any drawings, record or decision given in writing by the Engineer on any matter in connection with or arising out of the contract or carrying out of the Work, to be unacceptable, he shall promptly within 15 days request the Engineer in writing for written instruction or decision. Thereupon, the Engineer shall give his written instructions or decision within a period of one month from the receipt of the Contractor's letter.

If the Engineer fails to give his instructions or decision in writing within the aforesaid period or if the Contractor is dissatisfied with the instructions or decision of the Engineer, the Contractor may, within 15 days of the receipt of Engineer's decision, appeal to the Chairman who shall afford an opportunity to the Contractor to be heard, if the latter so desires, and to offer evidence in support of his appeal. The Chairman shall give his decision within 30 days of receipt of Contractor's appeal. If the Contractor is dissatisfied with this decision then:

- a) The Dispute in respect of contract of value upto Rs. 1crore shall not be referred for adjudication through arbitration and.
- b) If the value of the contract is exceeding Rs.1 crore and upto Rs.5 crores,
  - (i) The Dispute shall be resolved through arbitration by a sole arbitrator appointed by the Chairman of Cochin Port Trust :
  - (ii) The Contractor shall within a period of 30 days from receipt of the decision of the Chairman, give notice to the Chairman for appointment of arbitrator, failing which, the said decision shall be final, binding and conclusive and not referable to adjudication by the arbitrator.

If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid. Such person shall be entitled to proceed with the reference from the stage at which it was

left by his predecessor.

- c) If the value of the Contract is above Rs.5 crores, the Contractor shall within 30 days of receipt of the decision of the Chairman, appoint an arbitrator and give notice to the Chairman and the dispute shall be resolved through Arbitral Tribunal as detailed below:

The Arbitral Tribunal shall be a panel of three arbitrators, one to be appointed by each Party and the third to be appointed by the two Arbitrators appointed by the Parties. A Party requiring Arbitration shall appoint an Arbitrator in writing, inform the other Party about such appointment and call upon the other Party to appoint its Arbitrator. If the other Party fails to appoint its Arbitrator, the Party appointing Arbitrator shall take steps in accordance with Arbitration and Conciliation Act, 1996 or any statutory modifications or reenactment thereof

- d) In case of the dispute or difference is relating to interpretation and application of the provisions of commercial contract between Central Public Sector Enterprises (CPSE), Port Trust inter se or CPSE and Government Department shall be referred by either party for arbitration to the Permanent Machinery of Arbitrators in the Department of Public Enterprises through the Secretary to the Government of Public Enterprises as per the guidelines issued by Department of Public Enterprises OM No.4 (1) 2011- DPE (PMA) – GL dtd. 12.06.2013 or any statutory amendment thereof.

25.2.1 It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each such dispute along with the notice for appointment of arbitrator and giving reference to the rejection by the Chairman of the appeal.

25.2.2 It is also a term of this contract that no person other than person / persons appointed as aforesaid should act as arbitrator / arbitrators and if for any reason that is not possible, the matter shall not be referred to arbitration at all.

25.2.3 It is also a term of this contract that if the Contractor does not make any demand for appointment of arbitrator in respect of any claims in writing as aforesaid within 120 days of receiving the intimation from the Engineer that the final bill is ready for payment, the claim of the Contractor shall be deemed to have been waived and absolutely barred and the Employer or his authorized representative shall be discharged and released of all liabilities under the contract in respect of these claims.

25.2.4 The arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act, 1996 (26 of



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1996) or any statutory modifications or reenactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

25.2.5 It is also a term of this contract that the Arbitrator / Arbitral Tribunal shall adjudicate only on such disputes as are referred to him/them and give separate award against each dispute and claim referred and in all cases where the total amount of the claims by any party exceeds Rs.1,00,000/- the arbitrator shall give reasons for the award.

25.2.6 It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties.

25.2.7 It is also a term of the contract that the arbitrator/arbitrators shall be deemed to have entered on the reference on the date he / they issues notice to both the parties calling them to submit their statement of claims and counter statement of claims. The venue of the arbitration shall be at Cochin. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award (including the fees, if any, of the arbitrator) shall be in the discretion of the arbitrator who may direct to any party by whom and in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.”

### **26. Computerized Measurement Book**

(a) 5<sup>th</sup> para shall be replaced by the following:

The Contractor shall also submit to the department separately his computerized Abstract of Cost and the bill based on these measurements, duly bound, and its pages machine numbered along with **three** spare copies of the bill. Thereafter, this bill will be processed by the Division Office and allotted a number as per the computerized record in the same way as done for the measurement book meant for measurements.

(b) All other paras under Clause 26 remain the same.

### **40. Payments for Variations**

(a) Clauses 40.2 and 40.3 shall be replaced by the following:

40.2 For items not existing in the Bill of Quantities or substitution to items in the Bill of Quantities, rate payable should be determined by methods given below and in the order given below:



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- i) Rates and prices derived from the rate of similar items in Contract.
  - ii) Rates and prices in the Schedule of Rates applicable to the Contract plus Ruling percentage.
  - iii) Market rates of materials and labour, hire charges of plant and machinery used, plus **15%** for overheads and profits of Contractor.
- 40.3 For items in the Bill of Quantities but where quantities have increased beyond the variation limits, the rate payable for quantity in excess of the quantity in the Bill of Quantity plus the permissible variation shall be as determined by methods given below:
- i) Rates and prices in the Schedule of Rates applicable to the Contract plus Ruling percentage.
  - ii) Market rates of materials and labour, hire charges of plant and machinery used, plus **15%** for overheads and profits of Contractor.

whichever is lower, but not less than the rate in the Bill of Quantities.

(b) All other sub clauses under Clause 40 remain the same.

### **43. Payments**

(a) Clause 43.2 shall be replaced by the following:

43.2 Payment of bills for Civil Works shall be regulated as detailed hereunder:

43.2.1 Any Interim/Final bill which is **incomplete in any respect** shall be returned to the Contractor within 4 days of date of submission of bill to the Engineer or his Nominee.

43.2.2 Interim bills shall be paid within 21 days of date of submission of bills in full shape, by the Contractor, as detailed below:

43.2.2.1 Clarifications/corrections if any required on an Interim bill submitted, shall be sought from the Contractor within 4 days of submission of the bill and also, all such clarifications/corrections required shall be sought at one go except in exceptional circumstances. The Contractor shall submit the clarifications including carrying out corrections in the bill, if required, within 4 days thereafter. The clarified / corrected bill shall be verified and forwarded to





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Finance Department within the next 4 days. Clarifications if any required by the Finance Department shall be sought within 3 days and the Engineer/Nominee shall clear it on top priority within the next 3 days and, finally, the bill shall be paid to the Contractor within 3 days thereafter, i.e., within a total 21 days of date of submission of bills in full shape, as indicated above.

43.2.2.2 However, on request by the Contractor, 75% of the bill amount shall be paid within 7 days of submission of the bill. Balance amount of the verified bill shall be paid within 21 days of the submission of the bill, on completion of all contractual requirements as brought out at sub clause 43.2.3. below.

43.2.3 Final bill shall be paid within 3 months of issue of Taking Over Certificate by the Engineer / Nominee, as detailed below:

43.2.3.1 The Contractor shall submit the Final bill to the Engineer / Nominee within 20 days of issue of Taking Over Certificate by the Engineer / Nominee. The bill shall be checked and all clarifications/corrections required on the bill submitted, shall be sought from the Contractor within 15 days thereafter. The Contractor shall submit the clarifications including carrying out corrections in the bill, if required, within the next 10 days. The clarified / corrected bill shall be verified and forwarded to Finance Department within the next 15 days. Thereafter, clarifications if any required by the Finance Department shall be sought within 10 days and the Engineer/Nominee shall clear it on top priority within the next 10 days and, finally, the bill shall be paid to the Contractor within 10 days thereafter, i.e., within a total 3 months of issue of Taking Over Certificate by the Engineer / Nominee, as indicated above.

43.2.3.2 However, on request by the Contractor, 50 % of the final bill amount shall be paid within 7 days of submission of the bill, which will be adjusted against the final bill payment, on completion of all contractual



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requirements as brought out at sub clause 43.2.6. above.

(b) All other sub clauses under Clause 43 remain the same.

### **44. Compensation Events**

**Clauses 44.1 (c) to (e) - Deleted.**

*All other clauses under Clause 44 remain the same*

### **45. Rates for Items to be Inclusive Of Taxes**

45.1 The rate quoted by the Contractor shall be inclusive of the cost of provision of plant and equipment, materials, labour, execution, supervision, maintenance, overheads and profits and every incidental and contingent cost and charges whatsoever excluding Goods and Service Tax (GST). GST as may be applicable from time to time shall be shown separately in the invoice. The Employer will perform such duties in regard to the deduction of such taxes at sources as per applicable law. Any new Taxes, levies, duties imposed after signing the Contract shall be reimbursed by the Employer on production of documentary evidence.

45.2 The invoice to be submitted by the Contractor should include the GST Registration Number of the Contractor as well as the Employer.

### **48 & 52 Retention Money and Security Deposit**

The Clauses 48 and 52 of the General Conditions of Contract related to the Retention Money and Security Deposit, stands modified to the extent detailed below:

- (i) In all cases, the Performance Guarantee retained till end of Defect Liability Period shall be 5 % of the Contract Value or Cost of Work Done, whichever is higher.
- (ii) Wherever the cost of Work done exceeds the contract value, the total amount retained as Security deposit, considering the Performance Guarantee initially submitted together with the Retention Money recovered from the running accounts bills, shall amount to 10 % of the Cost of Work Done, at all times.
- (iii) In such cases, while releasing the Retention Money after payment of Final Bill as per the contract conditions, care shall be taken that only 5 % of the Cost of Work Done is released, instead of the entire retention money recovered from the bills. The balance amount shall be retained to make up for the shortage in the Performance Guarantee and shall be released along with the Performance Guarantee, upon completion of the Defects Liability



## Renovation of Ground floor of CFS building

Period.

### **52. Securities**

(a) Clauses 52.2 shall be replaced by the following:

**52.2 Performance Security** shall be 5% of the Contract value.

(b) All other sub clauses under Clause 52 remain the same.

### **55. Completion**

(a) Clause 55.4 shall be added as follows:

**55.4** The Completion Report / Certificate to the Contractor will be issued only after obtaining 'No Claim Certificate' from the Contractor in the format approved by the department stating that they have no further claims against CoPT in respect of the Work.

(b) All other sub clauses under Clause 55 remain the same.

### **80. Taxes and Duties**

Clause 80 shall be modified as follows:

**80.1 - Deleted**

**80.2 - Deleted**

**80.3 - Income Tax**

The Contractor and his staff shall be responsible for payment of all personal Income Taxes to the concerned authorities as per the law in force from time to time. Deduction of Income Tax shall be made by the Employer from each certificate of payment to the Contractor at the rate of 2% plus surcharge or such other rates as may be specified by the Central Government from time to time, on the gross amount of the Contractor's bill for payment.

**80.4** The Contractor shall comply with all the GST Regulations viz. timely uploading of bills, issue of debit/ credit notes etc.

### **G. Salient Features of Some Major Laws Applicable To Establishments Engaged In Construction Work.**

(Clauses [d] & l(i) shall be modified as follows:

(d) Maternity Benefit Act 1961 or Maternity Benefit Amendment Act 2017:- The Acts provides for leave and some other benefits to Workmen/ employees in case of confinement or miscarriage etc.

(l) ESI Act, 1948:-

(i) As per the Govt. Notification dt. 20.7.09, Cochin Port Trust has registered under the ESI Act with ESI Corporation and provision of ESI Act, 1948 are applicable to contract/ casual employees drawing wages/ Salary upto **Rs.20,000/-** per month and Working in Cochin Port Trust. Workers covered under ESI



**Renovation of Ground floor of CFS building**

Act, are entitled for full medical care for self and family. Besides, cash benefit in the event of sickness, maternity and employment injury. Accordingly, the contractual/casual employees drawing wages upto **Rs.20,000/-** per month employed either directly by Port Trust or through Contractor are covered under ESI Act, 1948. It is obligatory on the part of the employer to calculate and remit ESI contribution comprising of employers' share of 4.75% plus employees' share of 1.75% which is payable on or before 21<sup>st</sup> of the following month, to which the salary relates.

**SIGNATURE OF BIDDER**



**Renovation of Ground floor of CFS building**

**COCHIN PORT TRUST  
CIVIL ENGINEERING DEPARTMENT**

**Tender No: T6/T-1916/2020-C**

**TENDER FOR RENOVATION OF GROUND FLOOR OF CFS  
BUILDING**

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**SECTION –IV**

**COCHIN PORT TRUST**

**1. TECHNICAL SPECIFICATIONS**

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## SECTION –IV

### COCHIN PORT TRUST

#### 1. TECHNICAL SPECIFICATIONS

##### 1. DETAILED SPECIFICATIONS FOR MATERIALS

Except where otherwise specified or authorized by the Engineer-in-Charge, materials supplied by the Contractor shall conform to the latest edition of code of practices published by the Bureau of Indian Standard. Samples of materials to be supplied by the Contractor shall be shown to the Engineer-in-Charge sufficiently in advance for approval of its quality for use on the Work.

All the materials to be used on the Works shall have **BIS certification** mark if so available, unless otherwise specified elsewhere or shall be of approved brand with equivalent material as approved by the Engineer-in-Charge. Wherever, any brands are specified for the materials /products to be used on the Work, its equivalent quality material shall also be used, with the approval of the Engineer in Charge.

All materials supplied shall be stored appropriately to prevent deterioration/damage from any cause what so ever and to the entire satisfaction of the Engineer-in Charge.

The materials required for the Work shall be brought to the site and stacked at places shown by the Engineer-in-Charge and the same shall be got approved for use in Work sufficiently in advance so that the progress of the Work is not affected by the supply of materials.

##### 1.1. AGGREGATES FOR CONCRETE

1.1.1. Aggregates (fine and coarse) for concrete shall comply with the requirements of IS:383 – ‘Specifications for coarse and fine aggregate from natural sources for concrete’. Aggregate shall be obtained from sources approved by the Engineer-in-Charge. Aggregates, which are not perfectly clean, shall be washed in clean water to the entire satisfaction of the Engineer-in-Charge.

1.1.2. The fine aggregate shall be clean, hard, durable, uncoated, dry and free from injurious, soft or flaky pieces and organic or other deleterious substances.

1.1.3. Each type of aggregate shall be stored separately for the approval of Engineer-in-Charge. Wet aggregate delivered at the site shall be kept in storage for at least 24 hours to ensure adequate drainage before being used for concreting.

1.1.4. Contractor shall maintain at site at all times such quantities of each type of aggregate as are considered by the Engineer-in-Charge to be sufficient to ensure continuity of Work.

##### 1.2. CEMENT



## **Renovation of Ground floor of CFS building**

- 1.2.1. Quality of cement used for the Work shall be 43 grade ordinary Portland cement conforming to IS:8112 or 53 grade ordinary Portland cement conforming to IS:12269 or Pozzolona cement conforming to IS:1489 unless otherwise approved by the Engineer-in-Charge.
- 1.2.2. The cement required for the Work will have to be procured by the Contractor and shall comply with the relevant IS. As far as possible, the cement required for the Work will have to be procured from the government agencies. The cement shall, if required by the Chief Engineer / Engineer-in-Charge, be tested and analyzed by an independent analyst at the Contractor's cost and result produced to the Engineer-in-Charge.
- 1.2.3. Supply of cement shall be taken in 50kg bags bearing manufacture's name and ISI marking. Samples of cement arranged by the Contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case, test results indicate that the cement arranged by the Contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the Contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so.
- 1.2.4. A cement godown of adequate capacity as directed by the Engineer-in-Charge shall be constructed by the Contractors at the site of the Work for which no extra payment shall be made. Double lock provision shall be made to the door of the cement godown. The key of one lock shall remain with the Engineer-in-Charge or his authorized representative and the key of the other lock shall remain with the Contractor. The Contractor shall be responsible for the watch and ward and safety of the cement godown. The Contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge.
- 1.2.5. The cement brought to the site and cement remaining unused after completion of Work shall not be removed from the site without written permission from /of the Engineer-in-Charge.
- 1.2.6. The cement shall be stored in a weather proof building with facilities for inspection.
- 1.2.7. The Contractor shall maintain a cement register showing dates of receipt and issue, quantities used daily and balance which shall be accessible to the Engineer-in-Charge.

### **1.3. STEEL REINFORCEMENT**

- 1.3.1. The reinforcement steel used for the Work will have to be procured by the Contractor and shall be HYSD bars of Fe 500 / Fe415 grade conforming to IS:1786 unless otherwise approved by the Engineer-in-Charge.
- 1.3.2. The reinforcement steel required for the Work will have to be procured by the Contractor and shall comply with the relevant IS. The Contractor shall obtain approval from the Engineer-in-Charge well in advance for purchase of steel.



## Renovation of Ground floor of CFS building

- 1.3.3. The Contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of Work. Samples shall also be taken and got tested by the Engineer-in-Charge as per provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the Contractor does not conform to BIS codes, the same shall stand rejected and shall be removed from the site of Work by the Contractor at his cost within a week's time of written orders from the Engineer-in-Charge to do so.
- 1.3.4. The steel reinforcement shall be brought to the site in bulk supply of 10 tonnes or more or as decided by the Engineer-in-Charge.
- 1.3.5. The steel reinforcement shall be stored by the Contractor at site of Work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 1.3.6. For checking nominal mass, tensile strength, bend test etc., specimen of sufficient length as per IS:432/ IS:1608/ IS:1599 or as specified by the Engineer-in-Charge shall be cut from each size of the bar at random at frequency not less than the specified below.

Size of bar	For consignment below 100 tonnes	For consignment over 100 tonnes
Under 10 mm dia	One sample for each 25 tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia	One sample for each 35 tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm dia	One sample for each 45 tonnes or part thereof	One sample for each 50 tonnes or part thereof

- 1.3.7. The Contractor shall supply free of charge the steel required for testing. The cost of tests shall be borne by the Contractor.
- 1.3.8. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

## **1.4. WATER**

- 1.4.1. Clean fresh water free from oils, acids, alkalies, salt, sugar, organic materials or other harmful materials shall be used for washing aggregates, mixing and curing of concrete. The water used shall comply with clause 5.4 of IS:456-2000. Potable water is generally considered good for mixing concrete.
- 1.4.2. **Cochin Port Trust will not provide/supply water for the Work.** Water has to be arranged by the Contractor himself for the construction works including curing work **at his own risk and cost.**
- 1.4.3. Samples of water arranged by the Contractor shall be taken by the Engineer in Charge and got tested in accordance with the provisions of relevant BIS codes.



## **Renovation of Ground floor of CFS building**

In case test results indicate that the water arranged by the Contractor does not conform to the relevant BIS codes, the same shall not be used for any Works. The cost of tests shall be borne by the Contractor.

### **1.5. ADMIXTURES IN CONCRETE**

1.5.1. 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-in-Charge.

#### **1.5.2. Air Entraining Agents**

Where specified and approved by Engineer, neutralised vinyl resin or any other approved air-entraining agent may be used to produce the specified amount of air in the concrete mix and these agents shall conform to the requirements of ASTM standard 6260, air entraining admixtures for concrete. The recommended total air content of the concrete is 4% plus minus 1%. The method of measuring air content shall be as per IS : 1199.

#### **1.5.3. Water Reducing Admixtures**

Where specified and approved by Engineer-in-Charge water reducing lignosulfonate mixture shall be added in quantities specified by Engineer. The admixtures shall be added in the form of a solution.

#### **1.5.4. Retarding Admixtures**

Where specified and approved by Engineer-in-Charge retarding agents shall be added to the concrete mix in quantities specified by Engineer.

### **1.6. WATER PROOFING COMPOUND**

1.6.1. Water proofing compound shall be used for cement mortar for plastering or concrete work, wherever specified.

1.6.2. Integral cement water proofing compound conforming to IS 2645 and of approved brand and manufacture, enlisted by the Engineer-in-Charge from time to time shall be used.

1.6.3. The contractor shall bring the materials to the site in their original packing. The containers will be opened and the material mixed with dry cement in the proportion by weight, recommended by the manufacturers or as specifically described in the description of the item. Care shall be taken in mixing, to see that the water proofing material gets well and integrally mixed with the cement and does not run out separately when water is added.



## **Renovation of Ground floor of CFS building**

### **1.7. 6 MM SIZE AGGREGATE**

6mm size graded aggregate conforming to IS 383 shall be used and which are not perfectly clean shall be washed in clean water to the entire satisfaction of the Engineer-in-Charge.

### **1.8. PRECAST CEMENT CONCRETE BLOCKS**

1.8.1. Factory made precast solid concrete blocks shall be of size 300 mm x 200 mm x 150 mm or nearest available size conforming to IS : 2185 – Part I - 1979 in plain cement concrete of M-10 grade with 20mm /12mm graded metal. However, the length and shape of blocks to be provided at junctions shall be suitably modified to fit into the general configuration. These blocks are to be cast in appropriate moulds preferably steel moulds, which shall provide a smooth surface. The finished blocks shall be cured properly for a minimum period of 14 days. Blocks damaged during the removal of forms and handling will be rejected.

### **1.9. SAND FOR MAKING MORTAR FOR MASONRY WORK / PLASTERING WORK**

1.9.1. Sand used for masonry mortar shall conform to IS: 2116. Sand used for plastering shall conform to IS: 1542.

### **1.10. VITRIFIED FLOORING / SKIRTING TILES**

1.10.1. Tiles shall be of approved premium quality, Johnson or Khajaria or Asian or Somany or Orient Bell make and of approved colour and shade. The tiles shall be generally conforming to IS:13756/ IS:15622 with water absorption less than 0.08% and having modulus of rupture greater than 500kg/sq.cm & modulus hardness 8.0. The tiles shall be flat, true to shape and free from cracks, crazing spots, clipped edged and corners. The tiles shall be of minimum 600mm x 600mm size and shall have minimum thickness of 10mm.

1.10.2. The top surface of the tiles shall be glossy/ mat finish / antiskid as specified in the Schedule of quantities and as approved by the Engineer-in-Charge. The underside of the tiles shall be completely free from glazing in order to adhere properly to the base.

1.10.3. Manufactures test Certificate for water absorption, breaking strength, abrasion resistance and crazing has to be produced by the contractor.

### **1.11. CERAMIC TILES FOR FLOORING**

1.11.1. Ceramic tiles shall be of approved premium quality, Johnson or Khajaria or Nitco or Asian or Orient Bell make and of approved colour and shade. The tiles shall generally conform to IS:15622 and shall be conforming to Group B II. The abrasion resistance of the tiles shall be of Class IV and above. They shall be flat, true to shape and free from cracks, crazing spots, clipped edged and corners. The flooring tiles shall be of antiskid type tiles and shall be of minimum 300mm x 300mm size with thickness not less than 8mm.

1.11.2. The top surface of the tiles shall be antiskid as specified in the Schedule of quantities and as approved by the Engineer-in-Charge. The underside of the tiles shall be completely free from glazing in order to adhere properly to the base.



## **Renovation of Ground floor of CFS building**

1.11.3. Manufactures test Certificate for water absorption, breaking strength, abrasion resistance and crazing has to be produced by the contractor

### **1.12. CERAMIC TILES FOR SKIRTING/ DADOING**

1.12.1. Ceramic tiles shall be of approved premium quality, Johnson or Khajaria or Nitco or Orient Bell make, luster printed and of approved colour and shade. The tiles shall generally conform to IS : 15622 and shall be conforming to Group B III or higher quality. They shall be flat, true to shape and free from cracks, crazing spots, clipped edged and corners. The glazing shall be of uniform shade. The tiles shall be of minimum 300mm x 200mm size. It shall have thickness not less than 6mm.

1.12.2. The top surface of the tiles shall be glossy as approved by the Engineer-in-Charge. The underside of the tiles shall be completely free from glazing in order to adhere properly to the base.

1.12.3. Tests like water absorption, impact strength and crazing has to be carried out for the tiles and certificates shall be produced. The cost towards these tests has to be borne by the contractor.

### **1.13. STRUCTURAL STEEL**

1.13.1. The mild steel flats / plates used for the work shall conform to I.S. 2062. The material shall be free from visible as well as hidden defects such as pitting cracks, laminations, twists etc. and excessive rusting.

1.13.2. It is not necessary for the Contractor to obtain separate approval in case mild steel tube/pipe/plate is purchased from Steel Authority of India Ltd. or TATA Iron & Steel or Jindal Steel & Power Ltd. (JSPL). For purchase from other sources, the contractor shall apply sufficiently in advance and obtain written permission of the Engineer-in-Charge for making purchase from such sources.

1.13.3. Mild Steel Rectangular / Square Hollow Sections used shall be of Yst 310 grade conforming to IS : 4923. Pipes shall be designated by their outer dimension and weight per metre. It shall be free from visible as well as manufacturing defects such as pitting, cracks, laminations, twists etc. and excessive rusting.

1.13.4. Mild Steel tubular sections used shall be of Yst 320 grade conforming to IS 806 & 1161. Tubes shall be designated by their nominal bore and weight per metre. It shall be free from visible as well as manufacturing defects such as pitting, cracks, laminations, twists etc. and excessive rusting.

### **1.14. SYNTHETIC ENAMEL PAINT**

1.14.1. The Synthetic Enamel paint shall be of approved premium quality and shall conform to IS : 2923 (2003). The coverage shall conform to the Manufacturer's specification. The colour / shade shall be as per schedule or as per the direction of Engineer – in – Charge.

### **1.15. WATER THINNABLE CEMENT PRIMER**

1.15.1. The primer used for the work shall be Silicon based primer, manufactured by Asian/ Nerolac/ Berger/ Nitco of premium quality.



## **Renovation of Ground floor of CFS building**

### **1.16. ACRYLIC EMULSION PAINT EXTERIOR/INTERIOR**

1.16.1. The weather proof exterior acrylic emulsion paint shall be of approved premium quality either “Weather coat” by Berger or Nerolac Excel or “Weather shield” by ICI Dulux or Snowcyl XT-premium by Snowcem India Ltd. or Jotun Paints/ Asian paints. The interior acrylic emulsion paint shall be of approved premium quality either manufactured by Berger or Dulux or Nicholson or Jotun Paints/ Asian paints. The coverage shall conform to the manufacture’s specification. The colour/ shade shall be as per direction of the Engineer-in-Charge.

### **1.17. FIBRE GLASS REINFORCED PLASTIC (FRP) DOOR FRAMES**

1.17.1. Door Frames shall be three legged of cross section 90 mm x 45 mm having single rebate of size 32 mm x 15 mm to receive shutter of 30 mm thickness. The frame shall be made of laminate of thickness of 2 mm and shall be filled with wooden blocks of exterior grade MDF or seasoned and treated hard wood inside the laminate in all the three legs of the frame. The frame to be moulded by either hand lay up or resin transfer moulding process. The process shall consist of laying gelcoat at 1000 gms./m<sup>2</sup> and laid over with layer of FRP Mat (CSM mat) gelcoat and FRP (CSM Mat) are defined in IS 14856. The CSM mat shall be bonded with Isophatholic resin in the ratio not less than 1:2 (One part of Mat to two parts of Isophatholic resin and fillers & additives) by weight. The edge shall be sealed with gelcoat and FRP mat to obtain smooth finish. Sufficient roving shall be laid in the corner to have smooth curve while laying the CSM mat.

1.17.2. FRP door shall be manufactured as per specifications laid down in IS 14856, nomenclature of items & direction of Engineer-in-Charge.

#### **1.17.3. Tolerance**

1.17.4. Tolerance of size of frame to be + 2 mm and on size of rebate to be + 1 mm.

#### **1.17.5. Finish**

The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not noticeable shall be acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour & shade as approved by Engineer-in-Charge.

#### **1.17.6. Fixing of Frame**

The frames are to be fixed in prepared openings in the walls. All civil work and tiling should be completed before the fixing of the frames. The frames are to be fixed directly on the plastered wall. In case tiling is to be done in the place the frames are to be fitted, a 50 mm strip should be left untiled at the location where the frames are to be fitted. The frames are erected in the prepared opening such that the vertical members of the door frame are embedded 50 mm





## **Renovation of Ground floor of CFS building**

in the floor. The frame shall be fitted truly in plumb. A minimum of three anchor bolts or screws of size 65/100 shall be used to fix each vertical member. One bolt shall be fixed at 200 mm from the top member and one bolt shall be fixed at 200 mm from the floor. The third anchor bolt shall be fixed in the center. The top horizontal member shall be fixed using two 65/100 size anchor bolts or screws at a distance of 200 mm from both the corners.

### **1.17.7. Measurements**

The outer length of the vertical and horizontal members of door frame shall be measured in running metres including embedded length in floor corrected upto a cm.

### **1.17.8. Rate**

The rate includes the cost of the materials and labour involved in all the operations described above. The cost of anchor bolts or screws for joining the frame is included in the rate. Any other hardware, which may be required, shall be paid for separately

## **1.18. FIBRE GLASS REINFORCED PLASTIC (F.R.P.) SHUTTERS**

1.18.1.F.R.P. Shutters shall be manufactured conforming to the specifications as per IS 14856 and nomenclature of item & direction of Engineer-in-Charge.

1.18.2.Blocks of any seasoned hardwood of bulk density not less than 450 kg./m<sup>3</sup> at 12 per cent moisture content or any other material of sufficient thickness and length shall be provided inside the shutter at suitable place to hold fittings and fixtures such as aldrops, tower bolt, handle, sliding door bolt, mortice lock etc. Blocks for hinges shall be provided at three locations, unless otherwise specified by the purchaser. One at the centre and other two at 200 mm from the top and the bottom of the shutter. Blocks shall be provided at predetermined places in the shutter so as to fix hinges mortice locks, tower bolts, aldrops, door closures, etc. The finished surface shall be buffed and polished with wax.

### **1.18.3. Location of Fittings and Accessories**

The lock rail of door shutters shall be so placed that its centre line is at a height 850 + 5 mm from the bottom of the shutter. Door shutter shall be fixed to the frame with three hinges, unless otherwise specified by the purchaser, of the type specified. These locations shall be, one at centre and other two at 200 mm from the top and the bottom of the shutter, where blocks have already been provided and suitable indication by depressing the profile has been made. Screws for fixing the hinges shall be screwed in with screwdrivers & not hammered. The length of screw should be 8/30 mm. The hinges used shall be stainless steel or aluminum.

### **1.18.4. Finish**

The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not noticeable shall be



## **Renovation of Ground floor of CFS building**

acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour & shade as approved by Engineer-in-Charge.

### **1.18.5. Fixing of Shutters**

Door shutter shall be side hung on three bolt hinges of size 100 mm, one at the centre and the other two at 200 mm from the top and bottom of the shutter. The flat of the hinges shall be neatly counter sunk in to the recesses cut out to the exact dimensions of the hinge flap. The door shall be drilled on the thickness to fit hinges. Screws for fixing the hinges shall be screwed in with screwdrivers and not hammered. The length of the screws should be 8 mm/30 mm. The hinges used should be of stainless steel.

### **1.18.6. Tolerance**

The tolerance on the width and the height of the door shall be + 5 mm and the tolerance on the nominal thickness of the door shall be + 2 mm.

### **1.18.7. Fittings**

Fittings shall be provided as per schedule of fittings decided by Engineer-in-Charge. In moisture prone areas M.S. fittings and screws should not be used. Hardware such as handles, tower bolt, stopper, buffer etc. should be directly screwed (not pre-drilled) and fitted on the door.

### **1.18.8. Measurements**

Length and width of the shutters shall be measured to the nearest cm in closed position covering the rebates of the frames but excluding the gap between the shutter and the frame. Area is calculated to the nearest 0.01 sqm.

### **1.18.9. Rate**

The specified rate include the cost of the door shutter and labour involved in fixing of the shutter including fittings & fixtures on the door shutter, hinges & screws as provided

## **1.19. WOOD**

1.19.1. Timber for door frames shall be as specified in Bill of Quantities. Timber shall be sawn in the direction of the grains. All members of a frame shall be of the same species of timber and shall be straight without any warp or bow. Frames shall have smooth, well-planed (wrought) surfaces except the surfaces touching the walls, lintels, sill etc., which may be left clean sawn. Rebates, rounding or moulding shall be done before the members are jointed into frames. The depth of the rebate for housing the shutters shall be 15 mm, and the width of the rebates shall be equal to the thickness of the shutters. A tolerance of  $\pm 2$  mm shall be permitted in the specified finished dimensions of timber sections in frames.

## **1.20. ALUMINIUM SECTIONS**

1.20.1. Aluminium sections used for fixed/openable windows, ventilators, partitions, frame work & doors etc. shall be suitable for use to meet architectural designs to relevant works and shall be subject to approval of the Engineer-in-Charge for technical, structural, functional and visual considerations. The aluminium extruded sections shall conform to IS 733 and IS 1285 for chemical

composition and mechanical properties. The stainless steel screws shall be of grade AISI 304.

1.20.2. The permissible dimensional tolerances of the extruded sections shall be as per IS 6477 and shall be such as not to impair the proper and smooth functioning/operation and appearance of door and windows.

1.20.3. Aluminium glazed doors, windows etc. shall be of sizes, sections and details as shown in the drawings. The details shown in the drawings may be varied slightly to suit the standards adopted by the manufacturers of the aluminium work, with the approval of Engineer-in-Charge. Before proceeding with any fabrication work, the contractor shall prepare and submit, complete fabrication and installation drawings for each type of glazing doors, windows, ventilators and partition etc. for the approval of the Engineer-in-Charge. If the sections are varied, the contractor shall obtain prior approval of Engineer-in-Charge and nothing extra shall be paid on this account.

1.20.4. Powder Coating

**1.18.4.1 Material:** The powder used for powder coating shall be Epoxy/polyester powder of make approved by the Engineer-in-Charge. The contractor shall give detailed programme for powder coating in advance, to facilitate the inspection by Engineer-in-Charge or his authorized representative.

**1.18.4.2 Pre-treatment:** Each aluminium alloy extrusion or performed section shall be thoroughly cleaned by alkaline or acidic solutions under the conditions specified by chemical conversion coating supplier and then rinsed. A chemical conversion coating shall be applied by treatment with a solution containing essentially chromate ions or chromate and phosphate ions as the active components as applicable. The amount of the conversion coating deposited depends on the type used by the conversion coating chemical supplier. The conversion coating shall be thoroughly rinsed either with the solution specified by the conversion coating chemical supplier or with demineralized water and then dried at the temperature for the time specified by the conversion coating chemical supplier. The contractor shall submit the detail specifications and application procedure for application of conversion coating for approval of Engineer-in-Charge. The metal surface after the conversion coating pretreatment and prior to the application of the coating shall be free from dust or powdery deposits.

**1.18.4.3 Process:** The polyester powder shall be applied by electrostatic powder spray method. Before start of powder coating the contractor shall submit detail specification for application of polyester powder from manufacturer of the polyester powder for approval of Engineer-in-Charge. The powder coating shall be applied as per the specification approved by Engineer-in-Charge.

**1.18.4.4 Thickness:** The thickness of the finished polyester powder coating measured by micron meter shall not be less than 50 micron nor more than 120 micron at any point.

**1.18.4.5 Performance Requirements for the Finish**



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(i) *Surface appearance:* The finish on significant surfaces shall show no scratches when illuminated and is examined at an oblique angle, no blisters, craters; pinholes or scratches shall be visible from a distance of about 1 m. There shall not be any visible variation in the colour of finished surfaces of different sections and between the colours of different surfaces of same section.

(ii) *Adhesion:* When a coated test piece is tested using a spacing of 2 mm between each of the six parallel cuts (the cut is made through the full depth of powder coating so that metal surface is visible) and a piece of adhesive tape, approximately 25 mm x 150 mm approved by the Engineer-in-Charge is applied firmly to the cut area and then removed rapidly by pulling at right angles to the test area, no pieces of the finish other than debris from the cutting operation shall be removed from the surface of the finish.

**1.18.4.6 Protection of Powder Coated / Anodizing Finish :** It is mandatory that all aluminium members shall be wrapped with self adhesive non-staining PVC tape, approved by Engineer-in-Charge.

### **1.21. EPDM- GASKETS**

1.21.1. The EPDM Gaskets shall be of size and profile as shown in drawings and as called for, to render the glazing, doors, windows, ventilators etc. air and water tight. Samples of gaskets shall be submitted for approval and the EPDM gasket approved by Engineer-in-Charge shall only be used. The contractor shall submit documentary proof of using the above material in the work to the entire satisfaction of Engineer-in-Charge.

### **1.22. SEALANT**

1.22.1. The sealants of approved grade and colour shall only be used. The silicone for perimeter joints (between Aluminium section and masonry) shall be of make approved by the Engineer in Charge.

### **1.23. PRE-LAMINATED PARTICLE BOARD**

1.23.1. Pre laminated particle boards shall be Particles board laminated on both surfaces by synthetic resin impregnated base papers under heat and pressure. Pre-laminated particle boards shall be of Grade I corresponding to IS 3087 & 12823 Type-II.

### **1.24. GLASS**

1.24.1. The glass to be used on the work shall be of good quality of make “Saint Gobain” or “Modiguard” conforming to IS:2835 and free from defects scratches etc. The thickness of glass shall be as specified in the Schedule of quantities.

### **1.25. HYDRAULIC FLO -8OR SPRING**

1.25.1. The hydraulic floor spring shall be heavy duty double action floor spring of make approved by the Engineer-in-Charge suitable for door leaf of weight minimum 100 kg. The top cover plate shall be of stainless steel, flushing with floor finish level. The contractor shall cut the floor properly with stone cutting machine to exact size & shape. The spindle of suitable length to accommodate



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the floor finish shall be used. *The contractor shall give the guarantee duly supported by the company for proper functioning of floor spring at least for 10 years.*

### **1.26. PVC PIPE FOR DRAINAGE DISPOSAL**

1.26.1. PVC pipes shall conform to IS 4985 and class as specified in the schedule.

### **1.27. UNPLASTICIZED PVC PIPES (FOR WATER LINE)**

1.27.1. All unplasticized PVC pipes shall conform to IS: 4985 and shall be of Class-5 (10kg / cm<sup>2</sup>) for water supply system unless specified otherwise and shall be designated by external diameter.

1.27.2. The pipes shall be supplied in random length from 4 to 7m and shall have ISI certification marks.

1.27.3. The internal and external surface of the pipe shall be smooth and clean, free from grooving and other defects. The end shall be cleanly cut and shall be square with the axis of the pipe. Slight shallow longitudinal grooves or irregularities in the wall thickness shall be permissible provided the wall thickness remains within the permissible limits.

### **1.28. PVC FITTINGS (FOR WATER LINE)**

1.28.1. All fittings shall be of injection moulded PVC socket type with BIS's certification mark and designated by the diameters of their sockets. All fittings shall in all respects comply with IS:7834 (Part I-VIII).

### **1.29. MIRROR**

1.29.1. The mirror shall be of superior glass with edges rounded off or beveled, as specified. It shall be free from flaws, specks or bubbles. The size of the mirror shall be as specified and its thickness shall not be less than 5.5 mm. It shall be uniformly silver plated at the back and shall be free from silvering defects. Silvering shall have a protective uniform covering of red lead paint. Where beveled edge mirrors of 5.5 mm thickness are not available, fancy looking mirrors with PVC beading/border or aluminium beading or stainless steel beading/border based on manufacture's specifications be provided nothing extra shall be paid on this account. Backing of mirrors shall be provided with environmentally friendly material other than asbestos cement sheet.

### **1.30. MATERIALS NOT SPECIFIED**

1.30.1. All materials not herein detailed and fully specified but which may be required for use on Works, shall be subjected to the approval of the Engineer-in-Charge without which they shall not be used anywhere in the permanent Works

### **1.31. SAMPLING AND TESTING OF MATERIALS**

1.31.1. Sampling and testing of the material supplied by the Contractor for use on the Work shall be done as per the provisions of the relevant BIS codes/specifications. In the absence of BIS specification in a particular case, the sampling and testing shall be done as directed by the Engineer-in-Charge as



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sound engineering practice. Material conforming to the specifications and approved by the Engineer-in-Charge shall only be used by the Contractor.

1.31.2. All the sampling and testing shall be done at the Contractor's cost.

## **2. DETAILED SPECIFICATIONS OF ITEMS OF WORKS**

Except where otherwise specified or authorised by the Engineer-in-Charge all items of Works executed by the Contractor must conform to the latest edition of the Bureau of Indian Standard (BIS) Specifications, I.R.C., MORT&H's specifications and Code of practices published by BIS. Where no such specifications or code of adoption. The Bidder while indicating such specifications shall practice exists the latest BSS codes of practice shall also be considered for enclose the full set of the publication so referred and not in extracts. Photostat / Xerox copies in duplicate shall be forwarded which shall not be returned to the Contractor. In absence of any specification the department reserves the right to adopt trade specifications and /or sound engineering practices for the specialised Work as may be decided by the Engineer-in-Charge which shall be final, conclusive and binding on the Contractor.

Detailed specifications of items of Works are described below:

### **2.1. DISMANTLING/ DEMOLISHING WORKS**

- 1.1.1 The tenderer shall inspect the site and carry out the required investigation by himself about the present position and condition of the existing structures and assess the difficulties and the work involved in its dismantling and removal. It will be deemed that the tenderer has satisfied himself the condition of the structure and the nature of the work involved for the dismantling and removal and estimated its cost accordingly and port will be in no way responsible for the lack of such knowledge and also consequences thereof to the tenderer. The dismantling shall be done carefully without causing any damage to the remaining portions / structure.
- 1.1.2 Wooden boardings in lining of walls and partitions, Old Brick masonry/ PCC/ RCC works/ old plaster etc., are to be dismantled as per the direction of Engineer-in-charge. All the dismantled usable materials shall be stacked at the area pointed out by the Engineer –in –charge and all unusable materials shall be disposed by the contractor.
- 1.1.3 All the dismantling works shall be done carefully without causing any damage to the adjacent portion/existing structure. The unserviceable dismantled / cut materials shall be disposed off within 6kms of the work site and levelled as directed by the Engineer-in-Charge.



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### **2.2. EARTHWORK EXCAVATION**

- 1.2.1 Contractor shall be responsible for the true and proper setting out of the work in relation to original points, lines and levels of reference and for corrections of the level dimension and alignment of all parts of work.
- 1.2.2 All excavations shall be carried out to give exact length, width and depth as per profiles indicated in the drawings or as directed by the Engineer-in-Charge. The phasing and method of excavation shall be to the approval of Engineer-in-Charge. The contractor shall provide suitable arrangements to prevent water from any source entering into excavated pits at his cost.
- 1.2.3 Necessary shoring and timbering shall be provided as per IS:3764 for preventing slipping of the soil in trenches and for protecting the safety and stability of the existing structures. Dewatering, if required shall also be carried out to keep the excavated surface dry for construction. The cost for pumping or bailing out water by using pump set will be paid separately. Excavation taken wider or deeper than required shall be filled back with crusher run screening or selected materials approved by the Engineer-in-Charge, thoroughly compacted in layers of thickness not more than 20 cm or as decided by the Engineer-in-Charge.

### **2.3. RE BARING FOR FIXING REINFORCEMENT**

- 2.3.1 Rebars shall be of Fe 500D or more grade bars of diameter specified in the schedule.
- 2.3.2 Rebars shall be fixed to the existing RCC beams by drilling holes of 250 mm deep and required diameter.
- 2.3.3 The holes shall be thoroughly cleaned to all dust, dirt, loose concrete etc. from the hole.
- 2.3.4 The rebars shall be fixed in the hole by using heavy duty injection adhesive for rebar fixing in Wet/ Dry conditions " **HILTY HIT-RE 500** " or its approved equivalent product.
- 2.3.5 The adhesive shall be applied as per the manufactures specification.
- 2.3.6 Payment  
Payment shall be done per number of rebars fixed ( ie; for a depth of 250 mm. Remaining portion of reinforcement will be measured and paid for the reinforcement item).
- 2.3.7 The rate quoted shall include drilling holes, cleaning the holes , rebars, heavy duty injection adhesive for rebar fixing in Wet/ dry conditions " **HILTY HIT-RE 500** " or its approved equivalent product , fixing the rebars in the holes using adhesive etc.

### **2.4. PLAIN AND REINFORCED CEMENT CONCRETE**

#### **2.4.1. General**

The concrete used for all Works, concreting procedure etc. shall be in accordance with IS:456–2000.

**2.4.2. Concrete Mix**

Mix used for R.C.C. shall be of minimum M20 grade unless otherwise specified. Design mix shall be used for M20 and higher grade of concrete unless otherwise specified in the schedule.

**2.4.3. Nominal Mix**

For nominal mix concrete, proportion of fine aggregate to coarse aggregate shall be 1:2 by volume. The minimum cement content per cubic metre of nominal mix concrete shall be as given below.

Sl. No	Type of concrete	Cement content per Cu. M
1	Cement concrete 1:4:8 (1 cement: 4 sand: 8, 40 mm size graded metal)	170 Kg.
2	Cement concrete 1:4:8 (1 cement: 4 sand: 8, 40 mm size graded metal)	320 Kg
3	1:1.50:3 with 20mm size graded metal	400 Kg.

**2.4.4. Design Mix**

2.4.4.1. For design mix concrete of following grades of concrete the minimum cement content per cubic metre and maximum water cement ratio are as given below.

Sl. No	Grade of Concrete	Minimum cement content in Kg / m <sup>3</sup>	Maximum free Water cement ratio
1	M20	350	0.55
2	M25	330	0.55
3	M30	340	0.50

2.4.4.2. For design mix concrete, the Contractor shall make calculations jointly with Engineer-in-Charge and carryout all necessary tests at Contractor’s cost to determine the proportion by weight of cement, aggregates (coarse and fine), admixture if required and water necessary to produce concrete of required grade having the desired Workability and, water cement ratio not exceeding the allowable limit, prior to commencement of Work. The Contractor shall submit the following for the approval of Engineer-in-Charge.

- (i) The proportion of cement, coarse aggregate, fine aggregate and water so determined.
- (ii) The sieve analysis of aggregates which he proposes to use in the Works.





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- (iii) Full details of the tests conducted.
- (iv) All calculations relevant to mix design.

2.4.4.3. When the proportions are submitted to the Engineer-in-Charge which he considers will produce concrete having the required properties, it shall become the declared proportions to be used for the Work. The Agreement by the Engineer-in-Charge to such declared proportions shall not relieve the Contractor of any of his responsibilities to use in the Work at all times concrete having the required properties. No deviation from the declared proportions shall be allowed unless and until the Engineer-in-Charge shall have given his written authorisation for the adoption of revised proportions for the concrete.

2.4.4.4. Sampling, testing and acceptance criteria for designed mix concrete shall be as per clause 15, 16 & 17 of IS:456 - 2000 unless otherwise specified. Sampling and testing shall be done at Contractor's own cost. Testing shall be done in a laboratory approved by the Engineer-in-Charge.

### **2.4.5. Size of Coarse Aggregate**

For all concrete, plain or reinforced of M20 and higher grades, 20 mm size graded aggregate conforming to IS:383 shall be used unless otherwise specified. If 20 mm graded aggregates as per IS:383 are not readily available, graded 20 mm aggregate shall be obtained by blending 20 mm and 12.5/ 10 mm aggregates in the proportion arrived based on the combined sieving of aggregates.

### **2.4.6. Mixing of Concrete**

2.4.6.1. Concrete shall be mixed in a drum or pan type batch mixer, the type and capacity of which is to be approved by the Engineer-in-Charge. Time allowed for mixing, after all ingredients have been placed in the mixers shall not be less than two minutes. If there is segregation after unloading from the mixer, the concrete should be remixed.

2.4.6.2. Ready mix concrete from outside source shall be allowed for use on the work subject to the conditions that: (i) written permission shall be obtained from the Engineer-in-Charge, (ii) all quality control measures as stipulated by the Engineer-in-Charge are strictly adhered to by the Contractor at his cost, (iii) all design mix calculations as per Clause 2.3.4 of Tender Document shall be submitted by the contractor for approval of the Engineer-in-Charge & approval obtained; and (iv) all expenses towards conveyance and incidentals of providing departmental supervision at the mixing plant shall be borne by the Contractor.

### **2.4.7. Assembly of reinforcement for Reinforced Cement Concrete.**

2.4.7.1. The steel bars used for reinforcement Works shall be either mild steel bars conforming to IS:432 (Part I) or HYSD bars, conforming to IS:1786 (Grade Fe 500 / Fe 415) or both.



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- 2.4.7.2. The Contractor shall, when ordered, submit to the Engineer-in-Charge the detailed bar bending schedule for his scrutiny and approval sufficiently in advance (about four weeks) of the due date of commencement of the relevant items of Works. While Working out the bar bending schedule, the Contractor shall ascertain the length of bars likely to be made available to him and the schedule shall be so made, keeping the wastage/ cut bits of bars to bare minimum without hampering technical requirements. If the size of the steel bars specified in the drawing or schedule is not available, the nearest size available shall be used. Revised drawing shall be issued to the Contractor substituting the new size of reinforcement and bar bending schedule shall be prepared by the Contractor accordingly. No extra payment shall be made to the Contractor for making this substitution. The fabrication of reinforcement shall commence only after the bar bending schedule is approved by the Engineer-in-Charge.
- 2.4.7.3. Reinforcement shall be cut to the exact length and made truly straight and then bent to the exact shape and dimensions as indicated in the drawings. The bending and fixing of bars shall be done in accordance with IS:2502 unless otherwise specified.
- 2.4.7.4. All cut bits of steel are the property of the Contractor. However, the Contractor can dispose them off only with the permission in writing of the Engineer-in-Charge. If the department requires the cut lengths, they are to be handed over to the department and will be paid for at the rates at which they were purchased by the Contractor.
- 2.4.7.5. The reinforcement shall be cleaned by wire brush etc. to remove oil, grease, loose mill scale, loose rust or other deleterious matter that may reduce or destroy bond etc. before tying in position and also immediately before placing the concrete.
- 2.4.7.6. All reinforcement shall be placed and maintained in accordance with the drawings. Tolerance on placing of reinforcement shall be in accordance with clause 12.3 of IS:456-2000. Bolts, nuts, washers and rivets etc. required for complete erection of reinforcement and keeping in position shall be supplied by the Contractor at his own cost.
- 2.4.8. **Form Work**
- 2.4.8.1. The steel/ marine plywood formwork shall be used for concrete work. The form work shall be designed and constructed to the shape, lines and dimensions shown in the drawings within the tolerance limit and specified in clause 11.1 of IS:456-2000. Joints of the form works shall be made water tight by providing suitable beadings / gasket as approved by the Engineer-in-Charge. All rubbish, particularly chippings, shall be removed from the interior of the forms before the concrete is placed and the form work in contact with the concrete shall be cleaned and thoroughly wetted or treated with an approved composition. Care shall be taken that such approved composition is kept out of contact with the reinforcement.



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- 2.4.8.2. Before reuse, all forms shall be thoroughly scraped, cleaned, nails removed, holes that may leak suitably plugged and joints examined and when necessary, repaired and the inside retreated to prevent adhesion, to the satisfaction of Engineer. Warped timber shall be resized. Contractor shall equip himself with enough shuttering material to complete the job in the stipulated time.
- 2.4.8.3. Forms for sloped surfaces shall be built so that the formwork can be placed board -by- board immediately ahead of concrete placement so as to enable ready access for placement, vibration inspection and repair of the concrete. The formwork shall also be built so that the boards can be removed one by one from the bottom up as soon as the concrete has attained sufficient stiffness to prevent sagging. Surfaces of construction joints and finished surfaces with slopes steeper than 4 horizontal: 1 vertical shall be formed as required herein.
- 2.4.8.4. For forms for curved surfaces, the Contractor shall interpolate intermediate sections as necessary and shall construct the forms so that the curvature will be continuous between sections. Where necessary to meet requirements for curvature, the form timber shall be built up of laminated splines cut to make tight, smooth form surfaces. After the forms have been constructed, all surface imperfections shall be corrected and all surface irregularities at matching faces of form material shall be dressed to the specified curvature.
- 2.4.8.5. Care shall be taken to see that the faces of formwork coming in contact with concrete are perfectly cleaned and two coats of mould oil or any other approved material applied before fixing reinforcement and placing concrete. Such coating shall be insoluble in water, non-staining and not injurious to the concrete. It shall not become flaky or be removed by rain or wash water. Reinforcement and/or other items to be cast in the concrete shall not be placed until coating of the forms is complete; adjoining concrete surface shall also be protected against contamination from the coating material.
- 2.4.9. **Cover to Reinforcement**
- 2.4.9.1. Cover as specified in drawing shall be provided by using precast cement concrete block made from concrete of same grade as that of main Work unless otherwise directed by the Engineer-in-Charge.
- 2.4.10. **Transporting, placing, compacting and curing of concrete**
- 2.4.10.1. Transporting, placing, compacting and curing of concrete shall be as per clause 13 of IS:456-2000.
- 2.4.10.2. Concrete shall be transported from the mixer to the Worksite as rapidly as possible which will prevent the segregation or loss of any ingredient, and for maintaining the Workability.
- 2.4.10.3. The concrete shall be placed and compacted before setting commences and should not be subsequently disturbed. Care should be taken to avoid displacement of reinforcement or movement of formWork.



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- 2.4.10.4. All concrete shall be vibrated unless otherwise specified or approved by the Engineer-in-Charge and such vibrating shall be as required by the Engineer-in-Charge. The mechanical vibrators complying with IS:2505, IS:2506 or IS:4656 shall be used for compacting concrete. All vibrations shall be carried out to a plan approved by the Engineer-in-Charge. No Workman shall be allowed to operate the vibrator without having received instructions and training in its use. Care must be taken to avoid segregation and excessive vibration.
- 2.4.10.5. Concreting shall be carried out continuously upto construction joints, the positions and arrangement of which shall be as directed by the Engineer-in-Charge. When the Work has to be resumed the construction joints shall be prepared in accordance with clause 13.4 of IS:456-2000.
- 2.4.10.6. Unless otherwise specified, all concrete shall be kept continuously in a damp condition by ponding or by covering with a layer of sacking, canvas, hessian or similar materials with fresh water for not less than 7 days after laying the concrete. If curing is not done properly the department will be at liberty to engage labour for curing and the expenditure incurred will be recovered from the Contractor's bill. The decision of the Engineer-in-Charge will be final on this.
- 2.4.10.7. Stripping time for the form Work shall be as stipulated in clause 11.3 of IS:456-2000. Any impression, fins etc. that may occur from the form Work shall be removed and treated with cement mortar 1:1.5 (1 cement: 1.5 sand).
- 2.4.10.8. Contractor shall arrange to fix any fixtures wherever necessary while doing concreting Work without any extra cost. Cost of fixtures will be paid separately, if it is provided by the Contractor.
- 2.4.10.9. The unit rate quoted by the tenderer shall be for the finished Work and deemed to include cost of all materials and labour, provision of holes, recess, other contingent items etc. required for the completion of Work but excluding shuttering as specified in the schedule etc.

## **2.5. FILLING WITH SELECTED EXCAVATED EARTH**

- 2.5.1. The area shall be filled in layers 15 - 30 cm, of thickness or as specified in items specification, watered and compacted with hand rammers as directed by the Engineer-in-Charge, so as to avoid any settlement at later stage. For the final layer the surface shall be flooded with water and water allowed to stand for 24 hours. The finished level of the filling shall be trimmed to the level specified.

## **2.6. PECAST CEMENT CONCRETE BLOCK MASONRY**

- 2.6.1. The blocks shall be laid to level and alignment to bring out joint not more than 10 mm wide between the blocks. The grade of mortar shall be specified in the schedule of items. Curing shall be done for 7 days.



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2.6.2. Payment for cement concrete block masonry shall be made on cubic meter. The rate shall include all labour and materials including curing etc. complete required for completion of work.

### **2.7. CEMENT PLASTERING**

2.7.1. Cement plastering shall be with the grade of mortar and of thickness specified in the schedule. The surface to be plastered shall be thoroughly cleaned and kept wet for 4 hours before plastering.

2.7.2. All the corners shall be rounded off to a radius of 25 mm unless otherwise specified.

2.7.3. Where smooth finishing is specified in the schedule the plastering shall be floated over with neat cement slurry using 2.2 kg of cement per square metre immediately after the final coat of plastering and rate quoted for plastering shall include cost of this finishing work.

2.7.4. The plastered surface on which glazed tiles or other similar type of finishing are to be provided subsequently shall not be finished smooth but shall be scarified for forming a base for providing the final surface finish as required.

2.7.5. The surface shall be cured for 7 days.

2.7.6. The rate shall include all labour and materials including scaffolding, curing etc. complete required for completion of work. Measurement of the work under this head shall be made on the basis of the area of work done.

### **2.8. PROVIDING FLOORING WITH VITRIFIED FLOOR TILES/ CERAMIC FLOOR TILES**

2.8.1. The tiles shall be set in cement mortar 1:4 (1 cement : 4 sand) of average 20 mm thick laid to required level/ slope. Before laying cement mortar, the concrete surface shall be scrubbed with wire brush, all loose particles, foreign matters etc. shall be removed and the surface shall be made clean. Any undulations in the concrete shall be chipped off or made good with additional concrete of the same grade used for the under layer. The surface thus prepared shall be wetted and smeared with a coat of cement slurry using cement at the rate of 2.2 kg/m<sup>2</sup> of area just before the application of the mortar, so as to get good bond between base course concrete and plastering. For fixing tiles to mortar, neat cement slurry of honey like consistency using cement at the rate of 3.3 kg/m<sup>2</sup> shall be smeared on top of mortar bed. The joints between the tiles shall be uniform and of minimum thickness.

2.8.2. After laying the tiles, the surplus cement grout along the joints shall be cleaned off. The day after the tiles are laid, all joints shall be cleaned with wire brush to a depth of 5mm and pointed with tile jointing powder, of same colour as tiles, of approved make.

2.8.3. When the floor is ready to use the same shall be washed clean and dried with soft cloth or linen. If any tile is disturbed or damaged it shall be refitted or replaced and properly jointed and pointed.



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- 2.8.4. Measurement of the work under this head including cement mortar bed shall be made on the basis of the area of work done and rate quoted shall include the cost of all labour, materials, scaffolding etc required for completion of work.

### **2.9. PROVIDING GLAZED CERAMIC WALL TILES**

- 2.9.1. Dadoing with glazed tiles shall be done using tiles of approved quality set in plastered and scarified surface. Glazed tiles shall be chamfered at all edges / corners.
- 2.9.2. The plastered and scarified surface shall be wetted and neat cement Slurry of honey like consistency-using cement at the rate of 3.30kg/m<sup>2</sup> shall be smeared on the surface just before fixing the tiles. The tiles shall be laid over the slurry to the correct level and alignment with Minimum joint thickness. The joints shall be raked and pointed with tile jointing powder of same colour as tiles. Finally the surface shall be cleaned with oxalic acid.
- 2.9.3. All the exterior corners of columns, walls etc. to be provided with PVC corner beading of approved quality and colour of tiles.
- 2.9.4. The unit rate is inclusive of providing bed plastering with cement mortar 1:3,12mm thick and fixing glazed tiles over it and jointing with grey cement slurry @ 3.3kg per sqm, including pointing.

### **2.10. WATER THINNABLE PRIMER COAT**

- 2.10.1. Primer coat shall be preferably applied by brushing and not by spraying.

#### **2.10.2. Preparation of the Surface**

The surface shall be thoroughly cleaned of dust, old white or colour wash by washing and scrubbing. The surface shall then be allowed to dry for at least 48 hours. It shall then be sand papered to give a smooth and even surface. Any unevenness shall be made good by applying Putty made of Plaster of Paris mixed with water, on the entire surface including filling up the undulations and then sand papering the same after it is dry.

#### **2.10.3. Application**

The water thinnable primer shall be applied with a brush 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 marks. It shall be allowed to dry for at least 48 hours, before emulsion Paint is applied.

- 2.10.4. Measurements of the work under this head shall be made on the basis of the area work done and the rate quoted shall include the cost of labour, materials scaffoldings etc. required for the completion of the work.

**2.11. PROVIDING AND APPLYING ACRYLIC SMOOTH EMULSION PAINT OF EXTERIOR/ INTERIOR GRADE**

- 2.11.1. The surface shall be thoroughly cleaned off all mortar dropping, dirt dust, algae, fungus or moth, grease and other foreign matter of brushing and washing, pitting in plaster shall make good, surface imperfections such as cracks, holes etc. should be repaired using white cement. Over the prepared surface one base coat of primer for exterior paint of same brand shall be applied with hand brush in horizontal stroke followed immediately by a vertical one which together shall constitute one coat. After the primer coat has dried for at least 48 hours, the surface shall be lightly sand papered to make it smooth. All loose particles shall be dusted off after rubbing and the surface cleaned well. The first finishing coat of exterior/ interior paint shall then be applied with hand brush in horizontal stroke followed immediately by a vertical one which together shall constitute one coat. The second coat shall be applied in the same way of first coat to obtain an even surface, after the first finishing coat dried as per the directions of the Engineer-in-Charge.
- 2.11.2. Two or more coats shall be applied @ 1.67 ltr/ 10 m<sup>2</sup> over and including priming coat of exterior primer applied @ 2.20 kg/ 10 m<sup>2</sup>
- 2.11.3. Measurements of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of labour, materials, scaffolding etc. required for the completion of work.

**2.12. WOOD WORK**

- 2.12.1. Workmanship for the woodwork shall be good and conforming to the satisfaction of the Engineer-in-Charge.
- 2.12.2. Scantlings shall be accurately planed smooth to the full dimensions and rebates, roundings, mouldings etc. as per drawings. Patching or plugging is not allowed.
- 2.12.3. Joints shall be simple, neat, and strong without wedging / filling and pinned with teak/bamboo pins.
- 2.12.4. All wood works shall be brought to the site and approved by the Engineer-in-Charge before it is painted or oiled. The wood works brought to the site after applying painting, but without obtaining prior approval from the Engineer-in-charge shall be rejected. All concealed timber surfaces and portions of timber butting against wall and lintel shall receive one coat of primer and 2 coats of coal tar or bituminous paint.
- 2.12.5. Frame shall be fixed to walls using M.S clamps as per schedule of fittings. The M.S clamps shall receive two coats of coal tar or bituminous paint before its embedment in concrete. In case of door frames without sills, vertical members shall be buried in the floor at least 40 mm deep.

- 2.12.6. Door frames wherever M.S clamps could not be provided, have to be fixed by using M.S corkscrew of 12mm x 100mm by drilling, plugging etc. No extra payment shall be made for this work.
- 2.12.7. Glazing shall be with good quality glass of thickness specified in the drawing. The glass panes shall be fixed by teak wood beading. A thin layer of approved quality readymade putty shall be applied between glass panes and sash bar / frames and glass panes and beading.
- 2.12.8. Fittings specified in the schedule shall be of approved quality / type. All fixtures / fittings shall be got approved by the Engineer-in-Charge before its use on work.

2.12.9. **WOODEN FRAME WORK**

2.12.9.1. **Joints**

The Jamb posts shall be through tenoned in to the mortise of the transoms to the full thickness of the transoms and the thickness of the tenon shall be not less than 2.5 cm. The tenons shall closely fit into the mortise without any wedging or filling. The contact surface of tenon and mortise before putting together shall be glued with polyvinyl acetate dispersion based adhesive conforming to IS:4835 or adhesive conforming IS:851 and pinned with 10 mm dia hard wood dowels, or bamboo pins or star shaped metal pins. The joints shall be at right angles when checked from the inside surfaces of the respective members. The joints shall be pressed in position. Each assembled door frame shall be fitted with a temporary stretcher and a temporary diagonal brace on the rebated faces.

2.12.9.2. **Fixing of Frames**

The frames shall be got approved by the Engineer-in-Charge before being painted, oiled or otherwise treated and before fixing in position. The surface of the frames abutting masonry or concrete and the portions of the frames embedded in floors shall be given a coating of coal tar. Frames shall be fixed to the abutting masonry or concrete with holdfasts or metallic fasteners as specified. After fixing, the jamb posts of the frames shall be plugged suitably and finished neat. Vertical members of the door frames shall be embedded in the floor for the full thickness of the floor finish and shall be suitably strutted and wedged in order to prevent warping during construction. A minimum of three hold fasts shall be fixed on each side of door. Hold fasts and metallic fasteners shall be measured and paid for separately.

2.13. **STEEL WORK IN BUILT UP SECTIONS AND TUBULAR SECTIONS**

- 2.13.1. Fabrication and erection of steel work shall be in accordance with the provisions of IS : 800. The steel sections as specified shall be cut square accurately to correct lengths. The cut edges should be dressed to a neat and workmanship finish and be free from distortion where parts are to be in contact metal to metal. All materials shall be straight and if necessary,



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- before being worked shall be straightened and / or flattened and shall be free from twists.
- 2.13.2. The component parts shall be assembled and aligned in such a manner that they are neither twisted nor otherwise damaged and shall be so prepared that the specified camber, if any, is provided. Proper clamps, clips, jigs and other fasteners (bolts and welds) shall be placed in a balanced pattern to avoid any distortion in the members and to ensure their correct positioning.
- 2.13.3. Welded connections shall be provided for joints except for the joints specially provided for erection purposes. For joints provided for erection purposes, bolted connections shall be used.
- 2.13.4. All bolts shall be provided with washers of sufficient thickness. The threaded portion of each bolt shall project through the nuts at least one thread.
- 2.13.5. Welding shall be done in accordance with the specifications laid down in IS 816 and as per detailed working drawing. Welding edges and the adjacent areas of the members (extending upto 20mm) shall be thoroughly cleaned of all oil, grease, scale and rust and made complete dry. Gaps between the members to be welded shall be kept free from all foreign matters. The welding procedure adopted and consumables used shall be got specifically approved by the Engineer in Charge. Excessive convexity, shrinkage cracks, under cutting, improperly fitted/misaligned parts, members distorted by the heat of welding etc. due to faulty welds shall be corrected – whole or portions – as directed by the Engineer-in-Charge.
- 2.13.6. The steel sections as specified shall be straightened and cut square to correct lengths. The steel work shall be hoisted and placed in position, carefully without any damage to itself and other building work and injury to workmen.
- 2.13.7. The suitability and capacity of all plants and equipment used for the work shall be to the complete satisfaction of the Engineer-in-Charge.
- 2.13.8. Proper access platform and safety arrangements shall be provided for working and inspection at no extra cost wherever required.
- 2.13.9. The electrodes required for the welding work shall be got approved before use. The electrodes should be stored properly without exposing them to atmospheric action. Proper protection should be given for site fabrication. The welding must be carried out under a covered roof.
- 2.13.10. The contractor should possess plant and equipments, derricks, lifting tackles, wire ropes, chain pulleys, jacks, winches, welding sets etc that may be required for fabrication and erection. The equipment being used shall be kept in good condition throughout.



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- 2.13.11. All damages to steel work caused during the transit or otherwise at the time of fabrication or erection and after erection shall be made good at no extra cost.
- 2.13.12. Prior to the positioning of the steel work over the supports, all laitance and loose material shall be removed by wire brushing and chipping and bearing surfaces cleaned and made thoroughly wet and cement grout shall be applied or as directed by the Engineer-in-Charge.
- 2.13.13. The rates given shall be for the finished items of work including supplying, fabricating, erecting and alignment with necessary appropriate materials, all connections, welding, rectification wherever necessary, transporting and handling charges, all accessories including cost of labour, materials, equipments, scaffolding, all lifts etc. complete.
- 2.13.14. The finished steel work shall be measured in kg. inclusive of the weight of cleats, brackets, distance pieces, separators, gusset plates etc., but no allowance shall be made for the welded material. The measurement for plates used on the work shall be made for the actual quantity used in works. The rate quoted per kg. shall be inclusive of cost of all materials, labour, erecting in position, scaffolding, all lifts, etc. complete

### **2.14. PROVIDING AND APPLYING SYNTHETIC ENAMEL PAINT**

- 2.14.1. The surface shall be thoroughly cleaned off all dirt, rust, dust, grease etc. with wire brush, sand paper etc., and be made perfectly clean and dry while painting.
- 2.14.2. The number of coats shall be as per schedule. Successive coats shall be applied only on the next day after rubbing with the finest grade of wet abrasive paper and dusting of the loose particles. The primers and paints used shall be of approved quality.
- 2.14.3. Measurements of the work under this head shall be made on the basis of the area of work done and rate quoted shall include the cost of surface preparation, materials, labour, scaffolding etc. required for the completion of works as detailed above.

### **2.15. FIBRE GLASS REINFORCED PLASTIC (FRP) DOOR FRAMES**

- 2.15.1. Door Frames shall be three legged of cross section 90 mm x 45 mm having single rebate of size 32 mm x 15 mm to receive shutter of 30 mm thickness. The frame shall be made of laminate of thickness of 2 mm and shall be filled with wooden blocks of exterior grade MDF or seasoned and treated hard wood inside the laminate in all the three legs of the frame. The frame to be moulded by either hand lay up or resin transfer moulding process. The process shall consist of laying gelcoat at 1000 gms./m<sup>2</sup> and laid over with layer of FRP Mat (CSM mat) gelcoat and FRP (CSM Mat) are defined in IS 14856. The CSM mat shall be bonded with Isophatholic resin in the ratio not less than 1:2 (One part of Mat to two parts of Isopathlic resin and fillers & additives) by weight. The edge shall be sealed with gelcoat and



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FRP mat to obtain smooth finish. Sufficient roving shall be laid in the corner to have smooth curve while laying the CSM mat.

2.15.2. FRP door shall be manufactured as per specifications laid down in IS 14856, nomenclature of items & direction of Engineer-in-Charge.

2.15.3. **Tolerance**

Tolerance of size of frame to be + 2 mm and on size of rebate to be + 1 mm.

2.15.4. **Finish**

The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not noticeable shall be acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour & shade as approved by Engineer-in-Charge.

2.15.5. **Fixing of Frame**

The frames are to be fixed in prepared openings in the walls. All civil work and tiling should be completed before the fixing of the frames. The frames are to be fixed directly on the plastered wall. In case tiling is to be done in the place the frames are to be fitted, a 50 mm strip should be left untiled at the location where the frames are to be fitted. The frames are erected in the prepared opening such that the vertical members of the door frame are embedded 50 mm in the floor. The frame shall be fitted truly in plumb. A minimum of three anchor bolts or screws of size 65/100 shall be used to fix each vertical member. One bolt shall be fixed at 200 mm from the top member and one bolt shall be fixed at 200 mm from the floor. The third anchor bolt shall be fixed in the center. The top horizontal member shall be fixed using two 65/100 size anchor bolts or screws at a distance of 200 mm from both the corners.

2.15.6. **Measurements**

The outer length of the vertical and horizontal members of door frame shall be measured in running metres including embedded length in floor corrected upto a cm.

2.15.7. **Rate**

The rate includes the cost of the materials and labour involved in all the operations described above. The cost of anchor bolts or screws for joining the frame is included in the rate. Any other hardware, which may be required, shall be paid for separately

**2.16. FIBRE GLASS REINFORCED PLASTIC (F.R.P.) SHUTTERS**

2.16.1. F.R.P. Shutters shall be manufactured conforming to the specifications as per IS 14856 and nomenclature of item & direction of Engineer-in-Charge.

2.16.2. Blocks of any seasoned hardwood of bulk density not less than 450 kg./m<sup>3</sup> at 12 per cent moisture content or any other material of sufficient thickness and length shall be provided inside the shutter at suitable place to hold fittings and fixtures such as aldrops, tower bolt, handle, sliding door bolt, mortice lock etc. Blocks for hinges shall be provided at three locations, unless otherwise specified by the purchaser. One at the centre and other two at 200 mm from the top and the bottom of the shutter. Blocks shall be provided at predetermined places in the shutter so as to fix hinges mortice locks, tower bolts, aldrops, door closures, etc. The finished surface shall be buffed and polished with wax.

2.16.3. **Location of Fittings and Accessories**

The lock rail of door shutters shall be so placed that its centre line is at a height 850 + 5 mm from the bottom of the shutter. Door shutter shall be fixed to the frame with three hinges, unless otherwise specified by the purchaser, of the type specified. These locations shall be, one at centre and other two at 200 mm from the top and the bottom of the shutter, where blocks have already been provided and suitable indication by depressing the profile has been made. Screws for fixing the hinges shall be screwed in with screwdrivers & not hammered. The length of screw should be 8/30 mm. The hinges used shall be stainless steel or aluminum.

2.16.4. **Finish**

The surface of the moulded frame shall be free from any visible defects such as small pores, crazing, blistering, wrinkling, impurities, defective impregnation, colour blots and aggregate defects, as mentioned in IS 14856. Scattered pin holes duly repaired and finished by applying resin and not noticeable shall be acceptable. Frame laminate shall be flat and shall have smooth and level surface. Laminate shall be finished in colour & shade as approved by Engineer-in-Charge.

2.16.5. **Fixing of Shutters**

Door shutter shall be side hung on three bolt hinges of size 100 mm, one at the centre and the other two at 200 mm from the top and bottom of the shutter. The flat of the hinges shall be neatly counter sunk in to the recesses cut out to the exact dimensions of the hinge flap. The door shall be drilled on the thickness to fit hinges. Screws for fixing the hinges shall be screwed in with screwdrivers and not hammered. The length of the screws should be 8 mm/30 mm. The hinges used should be of stainless steel.

2.16.6. **Tolerance**

The tolerance on the width and the height of the door shall be + 5 mm and the tolerance on the nominal thickness of the door shall be + 2 mm.

2.16.7. **Fittings**

Fittings shall be provided as per schedule of fittings decided by Engineer-in-Charge. In moisture prone areas M.S. fittings and screws should not be used. Hardware such as handles, tower bolt, stopper, buffer etc. should be

directly screwed (not pre-drilled) and fitted on the door.

**2.16.8. Measurements**

Length and width of the shutters shall be measured to the nearest cm in closed position covering the rebates of the frames but excluding the gap between the shutter and the frame. Area is calculated to the nearest 0.01 sqm.

**2.16.9. Rate**

The specified rate include the cost of the door shutter and labour involved in fixing of the shutter including fittings & fixtures on the door shutter, hinges & screws as provided

**2.17. SUPPLYING AND FIXING ROLLING SHUTTERS**

2.17.1. Rolling shutters shall conform to IS 6248. These shall include necessary locking arrangement and handles etc. These shall be suitable for fixing in the position as specified i.e. outside or inside on or below lintel or between jambs of the opening. The door shall be either push and pull type or operated with mechanical device supplied by the firm. Shutters upto 10 sq. metre shall be of push and pull type and shutters with an area of over 10 sq. metre shall generally be provided with reduction gear operated by mechanical device with chain or handle, if bearings are specified for each of operation, these shall be paid for separately.

2.17.2. Shutter : The shutter be built up of inter locking lath section formed from cold rolled steel strips. The thickness of the sheets from which the lath sections have been rolled shall be not less than 1.25 mm for the shutters upto 3.5 m width. Shutters above 9 metres width should be divided in 2 parts with provision of one middle fixed or movable guide channel or supported from the back side to resist wind pressure. The lath section shall be rolled so as to have interlocking curls at both edges and a deep corrugation at the centre with a bridge depth of not less than 12 mm to provide sufficient curtain of stiffness for resisting manual pressures and normal wind pressure. Each lath section shall be continuous single piece without any welded joint. When interlocked, the lath sections shall have a distance of 75 mm rolling centers. Each alternate lath section shall be fitted with malleable cast iron or mild steel clips securely riveted at either ends, thus locking in the lath section at both ends preventing lateral movement of the individual lath sections. The clips shall be so designed as to fit the contour of the lath sections.

2.17.3. Spring : The spring shall be of coiled type. The spring shall be manufactured from high tensile spring steel wire or strips of adequate strength conforming to IS 4454- Part I.

2.17.4. Roller and Brackets : The suspension shaft of the roller shall be made of steel pipe conforming to heavy duty as per IS 1161. For shutter upto 6 metre width and height not exceeding 5 metre, steel pipes of 50 mm nominal bore shall be used. The shaft shall be supported on mild steel

brackets of size 375 x 375 x 3.15 mm for shutters upto a clear height of 3.5 metre. The size of mild steel brackets shall be 500 x 500 x 10 mm for shutters of clear height above 3.5 m and upto 6.5 m. The suspension shaft clamped to the brackets shall be fitted with rotatable cast iron pulleys to which the shutter is attached. The pulleys and pipe shaft shall connected by means of pretensioned helical springs to counter balance the weight of the shutter and to keep the shutter in equilibrium in any partly open position.

- 2.17.5. When the width of the opening is greater than 3.5 mtr. The cast iron pulleys shall be interconnected with a cage formed out of mild steel flats of at least 32 x 6 mm and mild steel dummy rings made of similar flats to distribute the torque uniformly. Self aligning two row ball bearing with special cast iron casings shall be provided at the extreme pulley and caging rings shall have a minimum spacing of 15mm and at least 4 number flats running throughout length of roller shall be provided.
- 2.17.6. In case of shutters of large opening with mechanical device for opening the shutter the roller shall be fitted with a purion wheel at one end which in contact with a worm fitted to the bracket plate, caging and pulley with two ball bearing shall be provided.
- 2.17.7. Guide Channel : The width of guide channel shall be 25 mm the minimum depth of guide channels shall be as follows:

<i>Clear width of shutters</i>	<i>Depth of guide channel</i>
Upto 3.5 m	65 mm
3.5 m upto 8 m	75 mm
8 m and above	100 mm

- 2.17.8. The gap between the two legs of the guide channels shall be sufficient to allow the free movement of the shutter and at the same time close enough to prevent rattling of the shutter due to wind.
- 2.17.9. Each guide channel shall be provided with a minimum of three fixing cleats or supports for attachment to the wall or column by means of bolts or screws. The spacing of cleats shall not exceed 0.75 m. Alternatively, the guide channels may also be provided with suitable dowels, hooks or pins for embedding in the walls.
- 2.17.10. The guide channels shall be attached to the jambs, plumb and true either in the overlapping fashion or embedded in grooves, depending on the method of fixing.
- 2.17.11. **Cover :** Top cover shall be of mild steel sheets not less than 1.25 mm thick and stiffened with angle or flat stiffeners at top and bottom edges to retain shape.
- 2.17.12. Lock plates with sliding bolts, handles and anchoring rods shall be as per IS 6248.



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### **2.17.13. Fixing**

The arrangement for fixing in different situations in the opening shall be as per IS 6248.

2.17.14. Brackets shall be fixed on the lintel or under the lintel as specified with rawl. Plugs and screws bolts etc. The shaft along with the spring shall then be fixed on the brackets.

2.17.15. The lath portion (shutter) shall be laid on ground and the side guide channels shall be bound with ropes etc. The shutter shall then be placed in position and top fixed with pipe shaft with bolts and nuts. The side guide channels and cover frames shall then be fixed to the walls through the plate welded to the guides. These plates and bracket shall be fixed by means of steel screws bolts, and rawl plugs concealed in plaster to make their location invisible. Fixing shall be done accurately in a workmen like manner that the operation of the shutter is easy and smooth.

### **2.17.16. Measurements**

Clear width and clear height of the opening for rolling shutter shall be measured correct to a mm. The clear distance between the two jambs of the opening shall be clear width and the clear distance between the sill and the soffit (bottom of lintel) of the opening shall be the clear height. The area shall be calculated in square metres correct to two places of decimal.

### **2.17.17. Rate**

The rate shall include the cost of materials and labour involved in all the operations described above including cost of top cover and spring except ball bearing and mechanical device of chain and crank operation, which shall be paid for separately.

## **2.18. PROVIDING AND FIXING EUROPEAN TYPE WATER CLOSET WITH FLUSHING ARRANGEMENTS.**

2.18.1. The European type water closet shall be fixed on the floor on a cushion of cement concrete 1:5:10. The closet shall be fixed on the concrete bedding with SS fixing screws suitably grouted. The concrete bedding shall be left at 10mm above the finished floor level of the toilet room. The water closet shall be provided with a matching P or S trap suitable for the conditions. The joint between the water closet and the trap shall be made leak proof with cement mortar 1:1. The plastic seat cover with lid shall be fixed over the closet with CP brass hinges and nuts and rubbers. Slim type PVC flushing cistern of 10-litre capacity or nearest available size shall be fixed on the wall using suitable brackets firmly embedded in the wall. The cistern shall be provided with 32mm OD PVC flush pipe with suitable fittings.

2.18.2. Any cutting, breaking etc. made on walls and or flooring for the purpose shall be made good as part of this item.

## **2.19. PROVIDING AND FIXING URINAL**

2.19.1. Fixing urinal shall consist of a wall urinal, an automatic flushing cistern of 5 litres and waste pipes etc. Waste pipe shall be of 32mm nominal bore.

2.19.2. Urinal shall be fixed in position by using wooden plugs and screws. The size of wooden plugs shall be 50mmx50mm at base, tapering to 38mmx38mm at top and length 5cm. These shall be fixed to the wall in cement mortar 1:3. After the flange is fixed in the wall, the mortar shall be cured till it is set.

2.19.3. Each urinal shall be connected to 32mm dia. Waste pipe which shall discharge in to the channel or a floor trap. The connection between the urinal and flush or waste pipe shall be made by means of putty or white lead mixed with chopped hemp. The unit rate quoted shall also include supply and fixing 12mm CP brass stop cock etc. complete.

**2.20. PROVIDING AND FIXING WASH HAND BASIN**

2.20.1. Washbasin shall be fixed over on galvanized iron rag bolt, embedded in M-15 grade cement concrete in wall. Each basin shall be provided with 32mm dia chromium plated (CP) waste coupling and a 32mm dia PVC waste pipe and one number approved quality CP pillar tap. The cast iron brackets shall be painted with one coat of primer and two coats of synthetic enamel paint. The work shall be carried out as per the directions of the Engineer-in-charge. Water connections shall be done under separate item.

**2.21. PROVIDING AND LAYING OF PIPES FOR SEWAGE LINE**

2.21.1. Transporting laying and joining of pipes

Transporting, laying and joining of PVC pipes shall be done in accordance with IS.7634. Pipes fittings shall be transported from the stacking place to the work site with sufficient care to avoid damage to them.

2.21.2. Other materials to be made available by the Contractor.

All materials required for joining and laying pipes including lead spun yarn, solvent cement etc shall be brought by the Contractor at his own cost.

2.21.3. Joining of PVC pipes

Joining of PVC pipes shall be done in accordance with IS:7634. Solvent welded joint shall be used for joining of PVC pipes .Solvent welded joint shall be achieved by Non-heat application method .Solvent cement used for the joint shall conform to the details given under Para2.2.3 of IS.7635.

2.21.4. Payment

Payment shall be made on running meters basis measured center line length including all the fittings, valves bolts nuts etc. No separate payment shall be made for fixing fittings, valves etc for completing the works to the full satisfaction .The rate quoted shall include the cost of materials like lead spun yarn, solvent cement/ bolts/ nuts etc to be made available by the Contractor for joining pipes, providing suitable connections to the existing delivery line and providing the line as aforesaid.

**2.22. PROVIDING AND LAYING WATER SUPPLY LINES FOR EXTERNAL WORKS**

2.22.1. **General**

All the pipes of different diameters shall be conforming to BIS specifications. The rate quoted shall include cost of all specials like bends,



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tees, reducers etc., cost of burying or fixing on walls using all fittings as the case may be etc. complete, but excluding cost of taps, valves etc.

### 2.22.2. **Trenching for laying pipe lines**

Forming trenches for laying pipes shall be in accordance with IS:3114. Trenching for laying to depth of 500 to 900mm and width as required at site including removal of all obstructions met while excavating, shoring and bailing out of water, if necessary. The width of the trench shall be as small as possible but shall provide sufficient space for jointing the pipes and for providing concrete encasement wherever required.

### 2.22.3. **Transporting, laying, jointing and testing of pipes**

Transporting, laying, jointing and testing of PVC pipes shall be done in accordance with IS:7634 (Part-III)

### 2.22.4. **Transporting**

Pipes, fittings and valves etc. shall be transported from the stacking place to the worksite with sufficient care to avoid damage to them.

### 2.22.5. **Other materials to be made available by the contractor**

All other materials except those supplied under specific items in the schedule, required for jointing and laying pipes and fixing valves, including rubber gasket, lead, spun yarn, solvent cement etc. shall be brought by the contractor at his own cost.

### 2.22.6. **Jointing of PVC pipes**

Jointing of PVC pipes shall be done in accordance with IS:7634 (Part III), solvent welded joint shall be used for jointing of PVC pipes. Solvent welded joint shall be achieved by non-heat application method. Solvent cement used for the joint shall conform to the details given under Para 2.2.3 of IS:7634 (Part III).

### 2.22.7. **Testing of pipelines for leakage test**

The leakage test shall be conducted at a test pressure of 10 kg./cm<sup>2</sup>. No pipe installation shall be accepted until the leakage per hour in cubic centimeter is less than the quantity (Q) determined by the formula

$$Q = \frac{N \times D \times \sqrt{P}}{3.3}$$

Where Q = Allowable leakage in cm<sup>3</sup> / hour,  
N = No. of joints in the length of the pipeline tested,  
D = Diameter of pipe in mm, and  
P = Test pressure during the leakage test in kg/cm<sup>2</sup>.

### 2.22.8. **Fixing of valves and fittings**

Fixing of valves and fittings shall form part of laying the pipeline as directed by the Engineer-in-Charge.

### 2.22.9. **Payment**

Payment shall be done on running meter basis measured center line length including all the fittings, valves, bolts, nuts etc. No separate payment shall be made for fixing fittings, valves etc. for completing the work to the full satisfaction. The rate quoted shall include the cost of all specials like bends, 'tee's, reducers etc. and materials like rubber gasket, lead, spun yarn,

solvent cement, bolts, nuts etc. to be made available by the contractor for jointing pipes, providing suitable connections to the existing delivery line and testing the line as aforesaid.

**2.22.10. Back filling**

The soil under the pipe shall be solidly tampered to provide a firm and continuous support for the pipelines. If it is desired to observe the joints or couplings during testing they shall be kept exposed as directed by the Engineer-in-Charge, and the exposed parts shall be backfilled after the test to the satisfaction of the Engineer-in-Charge. This shall be continued till the ground surface in the general area .

Surplus excavated material shall be cleared from the site and disposed off within a lead of 100m as directed by the Engineer-in-Charge.

**2.23. PROVIDING AND WATER SUPPLY LINES FOR INTERNAL WORKS**

2.23.1. The pipes shall be laid and properly clamped to wooden plugs embedded on the wall. Alternatively, plastic or aluminum clamps of suitable design with steel screws shall be used. Horizontal pipes shall be supported with clamps at spacing not more than 1m center to center. For vertical pipes spacing may be increased by 50%. The pipes shall be aligned properly before fixing them on wooden plugs with clamps. Even if the wooden plugs are fixed using a plump line the pipe shall also be checked for alignment before clamping.

2.23.2. Connection to bib tap/stop valve shall be done by means of G.I adapter of approved quality and make.

2.23.3. Payment

Payment shall be done on running meter basis measured centerline length including all the fittings, valves, bolts, nuts, etc. No separate payment shall be made for fixing fittings valves etc. for completing the work to the full satisfaction. The rate quoted shall include the cost of fittings like tees, bends reducer etc. and materials like solvent cement / bolts/nuts/rubble gasket etc, to be made available by the Contractor for jointing pipes etc. and cost incurred for cutting the existing walls slabs, sunshade etc, and making good the same using concrete, mortar paint etc, as per the direction of Engineer-in-charge.

**2.24. SCHEDULE OF FITTINGS FOR CIVIL WORKS**

Sl. No.	Description	Details
1.	FRP moulded doors	1. 125mm size IS: 12817 marked stainless steel butt hinges with S.S. screws – 3 numbers minimum. 2. 200mm ISI marked oxidised S.S. tower bolt with 25mm S.S. screws – 1No. 3. 150mm S.S. Aldrop with necessary nuts and bolts - 1No.

**SIGNATURE OF BIDDER**



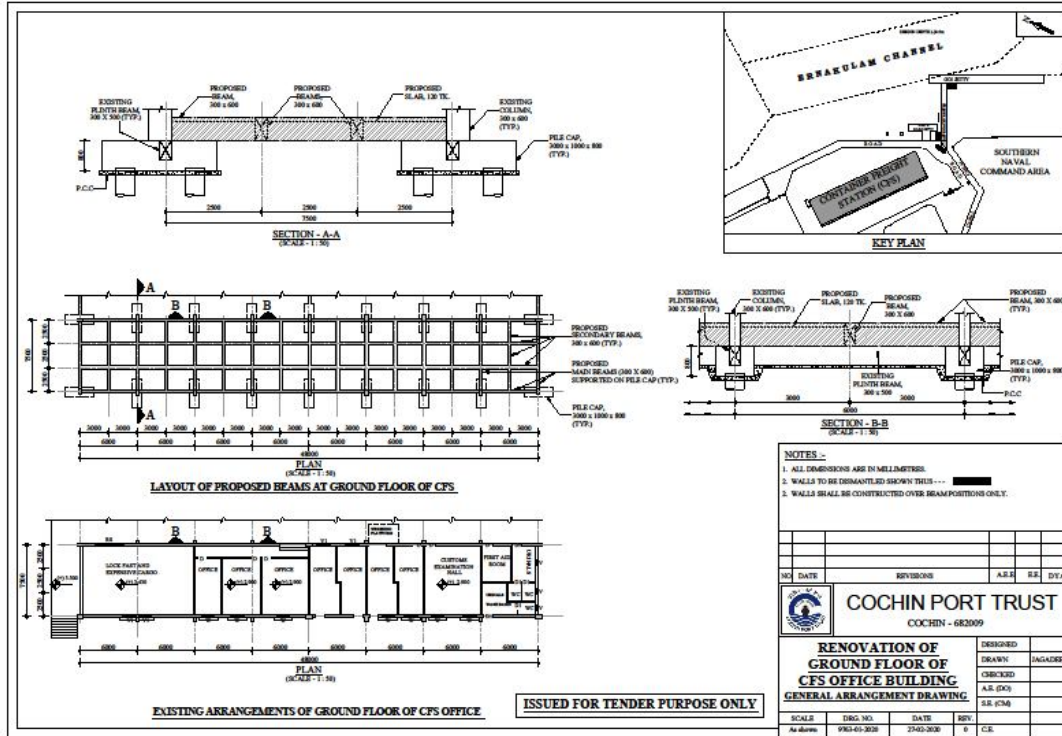
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**SECTION -IV**

**COCHIN PORT TRUST**

**2. DRAWINGS**

<b>Sl. No.</b>	<b>Title of Drawing</b>	<b>Page No.</b>
1	SITE PLAN - DP 912 DRG CL 01 001 – Rev. 3	131





**Renovation of Ground floor of CFS building**

**COCHIN PORT TRUST  
CIVIL ENGINEERING DEPARTMENT**

**Tender No: T6/T-1916/2020-C**

**TENDER FOR RENOVATION OF GROUND FLOOR OF CFS  
BUILDING**

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**SECTION –V**

**COCHIN PORT TRUST**

**1. PREAMBLE TO BILL OF QUANTITIES**

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## SECTION –V

### COCHIN PORT TRUST

#### 1. PREAMBLE TO BILL OF QUANTITIES

##### 1. General Instructions

##### 1.1. General

- 1.1.1. This Bill of Quantities must be read with the Drawings, Conditions of Contract and the Specifications, and the Contractor shall be deemed to have examined the Drawings, Specifications, General Conditions of Contract and to have acquainted himself with the detailed descriptions of the Works to be done, and the way in which they are to be carried out.
- 1.1.2. Notwithstanding that the Work has been sectionalized every part of it shall be deemed to be supplementary to and complementary of every other part and shall be read with it or into it so far as it may practicable to do so.
- 1.1.3. The detailed descriptions of Work and materials given in the Specifications are not necessarily be repeated in the Bill of Quantities.
- 1.1.4. The Contractor shall be deemed to have visited the Site before preparing his tender and to have examined for himself the conditions under which the Work will proceed and all other matters affecting the carrying out of the Works and cost thereof.
- 1.1.5. The Bidder will be held to have familiarised himself with all local conditions, in so far as they affect the Work, means of access and the locality of existing services, in order to execute the Works measured and described hereinafter. No claims for want of knowledge in this respect will be reimbursed.

##### 1.2. Rates and Prices to be Inclusive

- 1.2.1. Rates and prices set against items are to be the all inclusive value of the finished Work shown on the Drawings and/or described in the Specification or which can reasonably be inferred there from and are to cover the cost of provision of plant, labour, supervision, materials, test charges, freight, transportation, erection, installation, performance of Work, care of Works, insurance, maintenance, overheads and profits and every incidental and contingent cost and charges whatsoever excluding Goods and Service Tax (GST), but including every kind of temporary Work executed or used in connection therewith (except those items in respect of which provision has been separately made in the Bills of Quantities) and all the Contractor's obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the Works.
- 1.2.2. The Specifications are intended to cover the supply of material and the execution of all Work necessary to complete the Works. Should there be any



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details of construction or material which have not been referred to in the Specifications or in the Bill of Quantities and Drawings, but the necessity for which may reasonably be implied or inferred there from, or which are usual or essential to the completion of all Works in all trades, the same shall be deemed to be included in the rates and prices entered in the Bill of Quantities. The rates and prices are to cover the item as described in the Bill of Quantities and if there is inconsistency in the description between the Bill of Quantities, Specifications or Drawings, the interpretation will be done according to General Conditions of Contract.

- 1.2.3. The quantities given in the Bill are approximate and are given to provide a common basis for tendering. They are not to be taken as a guarantee that the quantities scheduled will be carried out or required or that they will not be exceeded. The Employer / Engineer reserves the right to delete any item and / or increase / reduce quantities indicated in the Bills of Quantities at any time. Payment will be made according to the actual quantities of Work ordered and carried out in the contract. However, the rates quoted shall be valid for any extent of variation in quantity of each individual item provided that the total contract value does not get altered by more than indicated in conditions of contract. No claim whatsoever for extra payment due to variation of quantities within the above said limit would be entertained.
- 1.2.4. The drawings for tender purposes are indicative only of the Work to be carried out. However, the Bidder must allow within his price for the items of Work included in the Tender Documents for the details which will appear on subsequent drawings developed for construction purposes. Rate and price shall include any additional design/ detailing to be carried out by Contractor.
- 1.2.5. The rates and prices shall include (except where separate items are given) for the provision and operation of the following items, for compliance with the Condition of Contracts, Special Conditions, the specifications and Tender drawings:
  - i) Supervision and labour for the Works;
  - ii) All materials, installation/erection, handling and transportation;
  - iii) All Contractor's Equipment;
  - iv) All testing, commissioning, insurance, maintenance, security, welfare facilities, overheads and profit and every incidental and contingent costs and charges whatsoever including;
  - v) All temporary fencing, watching, lighting, sanitary accommodation, general security arrangements, welfare facilities and first aid provision;
  - vi) Provision and maintenance of Contractor's Site offices, cabins, huts, maintenance and storage areas;
  - vii) All necessary temporary services including fresh water, compressed air lines, electrical cabling and switchgear, telephone, walkie-talkie and facsimile facilities
  - viii) The maintenance of all Contractor's services;
  - ix) All insurances for the Works;





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- x) Allow for complying with all environmental aspects as specified
- xi) For carrying out hot Work of any kind Contractor should consider safety of vessel in adjoining berth.
- xii) Detail design of components of temporary Works, wherever necessary as directed by Engineer.

#### **1.3. Method of Measurement**

Standard Method: The Work included in Bill of Quantities once completed will be presented to the Engineer's representative for checking quality and quantity of Work. The Engineer's representative after satisfying himself issue a certificate to that effect. Unless stated or billed otherwise quantities shall be measured in accordance with Indian Standard Code No.1200 for civil Work and shall be not as they are provide in the Works. The rates and prices shall include whatsoever allowance is considered to be necessary for wastage, Working spaces, construction slopes, batters.

The mode of measurement and payment described in the relevant technical specifications shall apply for the relevant items.

#### **1.4. Currency**

- 1.4.1. All monetary reference herein and the Bill of Quantities shall be priced in Indian Rupee Currency.

**SIGNATURE OF BIDDER**



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**COCHIN PORT TRUST**

**2. BILL OF QUANTITIES**

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**Attached in Price Bid**