

**OIL INDIA LIMITED**  
(A Government of India Enterprise)  
P.O. Duliajan-786602, Assam, India  
E-mail: [Contracts@oilindia.in](mailto:Contracts@oilindia.in)

**INVITATION FOR BID**

OIL INDIA LIMITED invites Local Competitive Bid (LCB) through its e-procurement portal <https://etender.srm.oilindia.in/irj/portal> for the following items:

<b>TENDER NO</b>	<b>Job Description</b>	<b>BID CLOSING/OPENING DATE</b>
CDI3092P17	Improvement of existing 3.3 km long gravelled road to bituminous road from well NHK#290 to well NHK#284 including supply of all materials and machineries by the contractor.	05-01-2017
CDI3097P17	Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.	

**Tender fee (Non-refundable): ₹ 1000.00, Bid Closing/Opening Time: 11:00/14:00 Hrs; Last date for submission of tender fee is 29-12-2016, 15:30 Hrs.** The complete bid documents and details for purchasing bid documents, participation in E-tenders are available on OIL's e-procurement portal <https://etender.srm.oilindia.in/irj/portal> as well as OIL's website [www.oil-india.com](http://www.oil-india.com).

**NOTE:** All addenda, Corrigenda, time extension etc. to the tenders will be hosted on above website and e-portal only and no separate notification shall be issued in the press. Bidders should regularly visit above website and e-portal to keep themselves updated.

(A Das)  
**DGM-Contracts (Civil)**  
**For Resident Chief Executive**

**Date: 29.11.2016**

OIL INDIA LIMITED  
(A GOVT. OF INDIA ENTERPRISE)  
P.O.DULIAJAN-786602, ASSAM  
E-TENDR NOTICE

OIL INDIA LIMITED (OIL) invites Bids under Single Stage Two Bid System from established Civil Engineering firms / contractors through its E-Procurement portal "<https://etender.srm.oilindia.in/irj/portal>" for the following works.

IFB No.	SHORT DESCRIPTION OF SERVICE	BID SECURITY	COST OF BID DOCUMENT
CDI3097P17	Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.	₹ 55,500/-	₹ 1000/-
<b>Period of Sale of Bid Doc. for above work: 01-12-2016, 07:00 am to 29-12-2016, 03:30 pm.</b>			
<b>Bid Closing / Opening Date &amp; Time for all the above works: 05-01-2017 11.00/14.00 Hrs</b>			
Bidder shall require User ID and Password for online submission of Bid. Vendors having user ID & password can purchase bid documents on-line through OIL's electronic Payment Gateway. Alternatively, bidders can write to DGM-Contracts, Contracts Department, Oil India Limited, P.O. Duliajan, Assam-786602 along with cost of bid document (non-refundable) in the form of Demand Draft / Banker's Cheque from any Scheduled Bank in favour of OIL INDIA LIMITED and payable at Duliajan, which must reach DGM-Contracts office on or before the last date of sale of Bid Document.			
New Vendors who do not have User ID & password shall request OIL for the issue of the same well in advance and OIL will take up to 5 working days to issue the same. Therefore bidder should not delay in making request till the last moment in their own interest. In case of delay because of late request by the bidders, OIL shall not be responsible for non-submission of Bid in absence of user ID and Password. Alternatively, User ID and Password may be generated online by the bidders by using the link for supplier enlistment given in OIL's e-tender portal and can purchase bid documents subsequently in the similar manner.			
<b>EXEMPTION OF TENDER FEE:</b> Central Govt. Departments and Central Public Sector Undertakings (PSU) are exempted from payment of tender fee. Application for exemption of Tender Fee must reach the office of DGM-Contracts, Contracts Department, Oil India Limited, Duliajan-786602(Assam) within the bid selling period.			
<b>No physical Bid documents will be issued.</b> The details of IFB can be viewed using "Guest Login" provided in the E-Procurement portal and also in OIL's web site <a href="http://www.oil-india.com">www.oil-india.com</a> . The link to OIL's E-Procurement portal has also been provided through OIL's web site <a href="http://www.oil-india.com">www.oil-india.com</a> .			
All corrigenda, addenda, amendments, time extension, clarifications etc. to the tender will be hosted on the OIL's website and in the e-tender portal only and no separate notification shall be issued in the press. Prospective bidders are requested to regularly visit the website and e-portal to keep them updated.			

**Date: 29-11-2016**

**DGM- Contracts (Civil)  
for RESIDENT CHIEF EXECUTIVE**

E-TENDER NO.: **CDI3097P17**  
OIL INDIA LIMITED  
(A Govt. of India Enterprise)  
Contracts Department, Duliajan

**Covering Letter**

OIL INDIA LIMITED a premier Public Sector Enterprise of Govt. of India engaged in drilling and exploration activities for hydrocarbon invites ON-LINE BIDS from experienced and established firms / contractors meeting the requisite criteria for the following mentioned work under **SINGLE STAGE TWO BID System** through its e-Procurement site:

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**DESCRIPTION OF WORK/ SERVICE:** Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.

**LOCATION OF WORK:** OIL Hospital, Duliajan, Dibrugarh.

**CONTRACT PERIOD:** 78 (Seventy Eight) Weeks.

**BID CLOSING/ OPENING DATE & TIME:** 05.01.2017(11:00 HRS/14:00 HRS)

**BID SECURITY DEPOSIT:** ₹ 55,500/- (Rupees Fifty Five Thousand Five Hundred Only).

a) Bid Security deposited vide Demand Draft / Banker's Cheque / Money Receipt/Bank Guarantee

No. \_\_\_\_\_ dated \_\_\_\_\_ of \_\_\_\_\_  
(Original hard copy of (a) should reach the office of DGM-CONTRACTS before Bid opening date and time, otherwise Bid will be rejected. A scanned copy of this document should also be uploaded along with the Un-priced bid documents.

b) Bidders to confirm that in the event of the award of Contract he/she/they will submit Performance Security Deposit @ 2.5% of the total contract price within two weeks of issue of LOI/LOA and this will not earn any interest. Immediately after deposit of Performance security, successful bidder shall have to sign the formal contract Agreement.

2.0 SEALED ENVELOPES containing the Bid Security Deposit (EMD) shall be marked with the above Tender Number and description of work and addressed to

**DGM-CONTRACTS**  
**CONTRACTS DEPARTMENT**  
**OIL INDIA LIMITED**  
**Duliajan – 786602**  
**Assam.**

2.1 All bidders shall deposit the requisite BID SECURITY in the form of Demand Draft/Banker's Cheque/ Money Receipt/Bank Guarantee from a Nationalized / Scheduled Bank in favour of M/s Oil India Limited and payable at DULIAJAN. Alternatively, applicants already having User ID & Password for OIL's e-portal can pay the requisite Bid security against the individual IFBs through the online payment

gateway. This Bid Security shall be refunded to all unsuccessful bidders, but is liable to be forfeited in full or part, at Company's discretion, as per Clause No. 6 below. **Bids without Bid Security in the manner specified above will be summarily rejected. However, OIL registered 'A' class bidders are exempted from depositing the bid security against this tender considering they submit revised "One Time Security Deposit" in line with OIL's notification no.: CONT/CIV/1296/2016 dated 25.08.2016, on or before 13:30 Hrs. of Bid Closing/Opening date of this tender.** Bid should be submitted on-line through OIL's e-Tendering Portal up to 11:00 hrs (IST) (Server Time) on the date as mentioned and will be opened on the same day at 14:00 hrs (IST) at Office of the DGM-Contracts in presence of authorized representative of the bidder. **THE BID SECURITY SHOULD BE DROPPED IN THE TENDER BOX PLACED AT THE OFFICE OF THE DGM CONTRACTS ON OR BEFORE 1:30 p.m. OF THE SCHEDULE DATE OF OPENING OF TENDER. ALTERNATIVELY, APPLICANTS ALREADY HAVING USER ID & PASSWORD FOR OIL'S E-PORTAL CAN PAY THE REQUISITE BID SECURITY AGAINST THE INDIVIDUAL IFBS THROUGH THE ONLINE PAYMENT GATEWAY.**

**Exemption from submission of bid security:**

Central Govt. Department & Public Sector Undertaking Companies are exempted from submission of bid security.

2.2 THE PHYSICAL BID SECURITY IS TO BE SUBMITTED ALONGWITH A COVERING LETTER MENTIONING THE e-TENDER NO AND THE BIDDER'S NAME AND ADDRESS IN A DULY SEALED ENVELOPE ADDRESSED TO – DGM – CONTRACTS, OIL INDIA LIMITED, CONTRACTS DEPARTMENT, DULIAJAN – 786602

2.3 If the bidders deposit the requisite Bid security in the form of Bank Guarantee, then the Bank Guarantee should be valid for 30 days beyond the required bid validity period.

3.0 However, if the above mentioned closing / opening day of the tender happens to be non-working day due to Bandh / Strike or any other reason, the bids will be received and opened on the following working day at the same time except on Saturdays.

4.0 The rates shall be quoted per unit as specified in the "Price Bidding Format" attached just below the "Tendering text". Bidder should note that no pricing information is furnished in the "c-Folder" (Technical Bid) otherwise the bid will be rejected.

4.1 All other techno-commercial documents other than price details to be submitted with un-priced bid as per tender requirement placed in the 'un-priced' bid folder.

4.2 The bid and all uploaded documents must be digitally signed using "Class 3" digital certificate [e-commerce application (Certificate with personal verification and Organization name)] as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.

4.3 The authenticity of above digital signature shall be verified through authorized CA after bid opening. If the digital signature used for signing is not of "Class -3" with Organization's name, the bid will be rejected.

4.4 Bidder is responsible for ensuring the validity of digital signature and its proper usage by their employee.

4.5 The bid including all uploaded documents shall be digitally signed by duly authorized representative of the bidding company.

5.0 The Company reserves the right to reject any or all the tenders or accept any tender without assigning any reason.

6.0 (a) No Bidder can withdraw his bid within the validity or extended validity of the bid. Withdrawal of any bid within validity period will lead to forfeiture of his/her/their Bid Security in full and debarment from participation in future tenders, at the sole discretion of the Company and the period of debarment will not be less than 2 (two) years.

(b) Once a withdrawal letter is received from any bidder, the offer will be treated as withdrawn and no further claim / correspondence will be entertained in this regard.

7.0

a) The Bid must be valid for 120 (One Hundred & Twenty) days from the date of opening of the tender.

b) In case of extension of Bid Opening Date, Bid validity must be extended suitably by the bidder, as and when advised by OIL.

c) The amount of Bid Security shall be as specified in the NIT.

d) In case the Bidder submits Bid security in the form of Bank Guarantee (BG), the BG must be valid for minimum 150 days (One Hundred & Fifty) from the date of Technical bid opening.

e) In case of extension of Bid Opening Date, Bid Security validity must be extended suitably by the bidder, as and when advised by OIL.

f) The bidders must upload the Integrity Pact, digitally signed by the authorized signatory (who is authorized to sign the bid) along with the Technical Bid.

8.0 Conditional bids are liable to be rejected at the discretion of the Company.

9.0 The work may be split up amongst more than one contractor at the sole discretion of the Company.

10.0 Before submission of bids, the bidder is advised to inspect the work site with permission from DGM (Civil) or his representative, to assess the nature and extent of

work and the conditions under which it will be carried out. He may also seek such clarification from this office as are deemed necessary.

**11.0 The bidders should quote their rates against individual items. The rates shall be quoted within (+/-) 10% on the internal estimate against individual items as specified in Schedule of Works (Part-II) subject to the limit of overall percentage from at par to (+10%) of the internal estimated contract cost. However, the bids with quoted rates below (-10%) or above (+10%) of the rates of internal estimate against individual items and bids with quoted overall percentage below at par and above (+10%) of the internal estimated cost will be rejected outright. The rates shall be in figures and up to two decimal places only. In case of any identical situation, the L-1 bidder will be decided through draw of lots.**

12.0 The bidders are required to furnish the composition and status of ownership of the firm in whose name bid documents have been purchased/issued along with one or more of the following documentary evidences (which are applicable to the bidder) in support of the same and scanned copies of the same should be uploaded along with the Un priced bid documents.

12.1 In case of Sole Proprietorship Firm, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, business and residential address, E-mail and telephone numbers of the owner and copies of Service Tax and Central Excise Registration Certificate.

12.2 In case of HUF, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form, Family Arrangement indicating therein the name, residential address, E-mail and telephone numbers of the owners in general and Karta in particular and copies of Service Tax and Central Excise Registration Certificate.

12.3 In case of Partnership Firm, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the partners(including the Managing Partner), registered partnership agreement/deed and copies of Service Tax and Central Excise Registration Certificate.

12.4 In case of Co-Operative Societies, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, registration certificate from Registrar of Co-Operative Societies and copies of Service Tax and Central Excise Registration Certificate.

12.5 In case of Societies registered under the Societies Registration Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, registration certificate from the Registrar of the state and copies Service Tax and Central Excise Registration Certificate.

12.6 In case of Joint Stock Companies registered under the Indian Companies Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Directors or persons who are at the helm of affairs, Certificate of Incorporation from the Registrar of Companies, Memorandum and Articles and copies of Service Tax and Central Excise Registration Certificate.

12.7 In case of Trusts registered under the Indian Trust Act, Copies of Telephone/Electricity/Mobile Bill, PAN card, latest Income Tax Return form indicating therein the name, residential address, E-mail and telephone numbers of all the Trustee or persons who are at the helm of affairs, registration certificate from the Registrar of the state, Trust Deed and copies Service Tax and Central Excise Registration Certificate.

NOTE: Point no. 12.1 to 12.7 is not applicable for contractors who are already registered with OIL INDIA LIMITED.

13.0 The selected bidder will be required to enter into a formal contract, which will be based on their bid, i.e. O.I.L's Standard Form of Contract.

**14.0 SECURITY DEPOSIT:**

The successful bidder shall furnish a Performance Security Deposit in the form of Demand Draft / Banker's Cheque / Bank Guarantee as specified above before signing the formal contract. The Security Deposit will be refunded to the Contractor after satisfactory completion of the work, but a part or whole of which shall be used by the Company in realization of liquidated damages or claims, if any or for adjustment of compensation or loss due to the Company for any reason. This Security Money shall not earn any interest.

15.0 OIL INDIA LIMITED reserves the right to curtail / enhance the scope of the work stated above or cancel, if required.

16.0 The amount of retention money shall be released after 6 (six) months from the date of completion certified by the concerned department.

17.0 The work shall have to be started within seven days from the date of work order.

18.0 Time Schedule: The time allowed for completing the work will be reckoned from the date of issue of work order. Time is the essence of the Contract and failure on part of the contractor to complete the work within the stipulated time, shall entitle the Company to impose liquidated damages and / or penalty from the contractor as per terms of the Contract.

19.0 The contractor will be required to allow OIL officials to inspect the work site and documents in respect of the workers payment.

**20.0 BACKING OUT BY BIDDER:** In case any bidder withdraws their bid within the bid validity period, The Bid security will be forfeited and the party will be debarred for a period of 2(two) years from the date of withdrawal of bid.

**21.0 BACKING OUT BY L-1 BIDDER AFTER ISSUE OF LOA:** In case LOA issued is not accepted by the L1 bidder or the Performance Security is not submitted as per the terms of the contract within the time specified in the Bid Document, the bid security shall be forfeited and the bidder shall be debarred for 2 (two) years from the date of default.

**22.0 FURNISHING FRAUDULENT INFORMATION/DOCUMENT:** If it is found at any time that, a Bidder / Contractor has / had furnished fraudulent documents / information, the Bid Security / Performance Security shall be forfeited and the bidder / contractor shall be debarred for a period of three (03) years from the date of detection of such fraudulent act, besides legal action.

**23.0 Bidder(s) must also furnish the followings:**

- a) NAME OF FIRM :
- b) DETAIL POSTAL ADDRESS :
- c) MOBILE / TELEPHONE NO :
- d) E-MAIL ADDRESS :
- e) FAX NO (If available) :
- f) CONTACT PERSON :
- g) VENDOR CODE (If available) :

**24.0 The tender will be governed by :**

- a) Covering Letter.
- b) Part - I - General Terms and Conditions for Works Contract. (GCC)
- c) Part - II - Schedule of Work, Unit and Quantity (SOQ)
- d) Part - III -Particular Specification, Special Terms, Conditions & Instructions of Contract (SCC)
- e) Part- IV - SCPME
- f) Part- V-Safety Measures
- g) Part- VI –Integrity Pact
- h) Bid Rejection Criteria & Bid Evaluation Criteria (BRC/BEC).

**i) Special Note:**

Please note that all tender forms and supporting documents are to be submitted on-line through OIL's E-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with tender no. and due date at following address:

**The DGM Contracts,  
Contracts Department,  
Oil India Limited,  
Duliajan- 786602, Assam**



- a. ORIGINAL BID SECURITY (Only in case of Bidder(s) submitting Bid Security in the form of Bank Draft / Banker's Cheque/ Bank Guarantee).

A scanned copy of Bid Security should also be uploaded along with the Unpriced Techno-Commercial Bid documents.

- b. Any other document required to be submitted in original as per tender requirement.

Scanned copy(s) of the same should also be uploaded along with the Un-priced Techno-Commercial Bid documents.

The above documents including the Original Bid Security (in case of bidders submitting Bid Security in the form of Bank Draft/Banker's Cheque/Bank Guarantee) must be received at OIL's DGM (Contracts) office at Duliajan on or before the scheduled date & time specified in the NIT, failing which the bid shall be rejected.

Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the bid or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in the rejection of its offer without seeking any clarifications. Offers sent without the requisite value of prescribed Bid Security (if called for in the bid) in original will be ignored straightway.

25.0 The tender is invited under SINGLE STAGE-TWO BID SYSTEM. The bidder has to submit both the "TECHNICAL" and "PRICED" bid through electronic form in the OIL's e-Tender portal within the Bid Closing Date and Time stipulated in the e-Tender. The Technical Bid is to be submitted as per Scope of Work & Technical Specification of the tender. The Price Bid rates shall be quoted per unit as specified in the "Price Bidding Format" attached just below the "Tendering text" in the main bidding engine of OIL's e-Tender Portal. The price quoted in the "Price Bidding Format" will only be considered for evaluation.

26.0 In Technical Bid opening, only Technical RFX (Technical-Folder) will be opened. Therefore, the bidder should ensure that Technical bid is uploaded in the Technical - Folder link (Technical RFX link) under Un-priced Bid Tab Page only. No price should be given in above Technical RFX, otherwise the offer will be rejected. Please go through the help document provided in OIL's e-Portal, in detail before uploading the document.

**NB: All the Bids must be Digitally Signed using "Class 3" digital signature certificate with Organization's Name (e-commerce application) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India.**

27.0 The Integrity Pact is applicable against this tender:

OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide “Part-VI Integrity Pact” of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL’s competent signatory. The proforma has to be returned by the bidder (along with the technical bid) duly signed (digitally) by the same signatory who sign the bid, i.e., who is duly authorized to sign the bid. Any bid not accompanied by Integrity Pact Proforma duly signed (digitally) by the bidder shall be rejected straightway. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact has been signed by the bidder’s authorized signatory who sign the Bid.

**(Note:** Shri Rajiv Mathur, IPS (Retd.), Former Director, IB, Govt. of India, E-Mail ID: [rajivmathur23@gmail.com](mailto:rajivmathur23@gmail.com) and Shri Satyananda Mishra, IAS (Retd.) Former Chief Information Commissioner of India & Ex-Secretary, DOPT, GOI E-Mail ID: [satyanandamishra@hotmail.com](mailto:satyanandamishra@hotmail.com) have been appointed as Independent External Monitors).

**28.0 SCREEN SHOTS:**

**Display RFX Response:**

Technical RFX Response

RFX Response Number 60006452 RFX Number TEST2  
RFX Owner WIPRO\_TEST1 Total Value 0.00 INR

RFX Information Items Notes and Attachments Conditions Summary Tracking

Basic Data Questions

Event Parameters

Currency: Indian Rupee

Detailed Price Information: Price with Conditions

Terms of Payment: 9010 90% against despatch+10% after receipt

Partners and Delivery Information

Details Send E-Mail Call Clear

Function	Number	Name	Valid fr
The table does not contain any data			

**On “EDIT” Mode- The following screen will appear. Bidders are advised to upload “Un-priced Techno-Commercial Bid” and “Priced Bid” in the places as indicated below:**

**Edit RFX Response:**

Submit Read Only Print Preview Check Technical RFX Response Close Save Verify signature

RFX Response Number 60006452 RFX Number TEST2 Status Withdrawn Submission Deadline 13.04.2013 11:00:00 INDIA  
RFX Owner WIPRO\_TEST1 Total Value 0.00 INR RFX Response Version Number 2 RFX Version Number 5

RFX Information Items Notes and Attachments Conditions

Notes

Add Clear

Assigned To	Category	Text Preview
The table does not contain any data		

Attachments

Sign Attachment Add Attachment Edit Description Versioning Delete Create Qualifier

Assigned To	Category	Description	File Name	Checked
The table does not contain any data				

**Note :**

\* The “Techno-Commercial Unpriced Bid” shall contain all techno-commercial details **except the prices.**

\*\* The “Price bid” must contain the price schedule and the bidder’s commercial terms and conditions. For uploading Price Bid, first click on Sign Attachment, a browser window will open, select the file from the PC and click on Sign to sign the Price Bid. On Signing a new file with extension .SSIG will be created. Close that window. Next click on Add Attachment, a browser window will open, select the .SSIG signed file from the PC and name the file under Description, Assigned to General Data and click on OK to save the File.

**29.0** OIL now looks forward to your active participation in the IFB.

**DGM-CONTRACTS**  
**For RESIDENT CHIEF EXECUTIVE**

OIL INDIA LIMITED  
(A Govt. of India Enterprise)  
Contracts Department,  
Duliajan, DISTRICT: DIBRUGARH  
ASSAM, PIN: 786602  
**Works Contract**

**DESCRIPTION OF WORK/SERVICES:** - Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.

**GENERAL CONDITIONS OF CONTRACT (GCC)**

MEMORANDUM OF AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_ Between OIL INDIA LIMITED a Company incorporated under the Companies Act 1956 and having its Registered Office at Duliajan in the District of Dibrugarh, Assam ( hereinafter called Company ) of the one part and Shri/Smti \_\_\_\_\_ and Shri/Smti \_\_\_\_\_ carrying on business as partners /proprietor under the firm name and style of M/s. \_\_\_\_\_ with the main Office at \_\_\_\_\_ in the District of \_\_\_\_\_ aforesaid ( hereinafter called 'Contractor') on the other part.

**WITNESSETH:**

1. a) The contractor hereby agrees to carry out the work set down in the Schedule of work which forms part-II of this Contract in accordance with the 1968 General Conditions of Contract of Oil India Limited and General Specifications read in conjunction with any drawings and Particular Specifications & instructions which forms Part-III of the contract utilizing any materials/services as offered by the Company as per Part-IV of the contract at \_\_\_\_\_ .

b) In this Contract all words and expressions shall have the same meaning as are respectively assigned to them in the 1968 General Conditions of Contract of Oil India Limited which the Contractor has perused and is fully conversant with before entering into this Contract.

c) The clauses of this contract and of the specifications set out hereunder shall be paramount and in the event of anything herein contained being inconsistent with any term or terms of the 1968 General Conditions of Contract of Oil India Limited, the said term or terms of the 1968 General conditions of Contract to the extent of such inconsistency, and no further, shall not be binding on the parties hereto.

2. The contractor shall provide all labour, supervision and transport and such specified materials described in part-II of the Contract including tools and plants as necessary for the work and shall be responsible for all royalties and other levies and his rates shall include for these. The work executed and materials supplied shall be to the satisfaction of the Company's Engineer and Contractor's rates shall include for all incidental and contingent work which although not specifically mentioned in this contract are necessary for its completion in a sound and workman like manner.

3. The Company's Engineer shall have power to:

a) Reduce the rates at which payments shall be made if the quality of work although acceptable is not up to the required standard set forth in the OIL Standard Specifications which have been perused and fully understood by the Contractor.

b) Order the Contractor to remove any inferior material from the site and to demolish or rectify any work of inferior workmanship, failing which the Company's Engineer may arrange for any such work to be demolished or rectified by any other means at the Contractor's expenses.

c) Order the Contractor to remove or replace any workman who he (The Engineer) considers incompetent or unsuitable; the Engineer's opinion as to the competence and suitability of any workman engaged by the Contractor shall be final and binding on the Contractor.

d) Issue to the Contractor from time to time during the progress of the work such further drawings and instructions as shall be necessary for the purpose of proper and adequate execution and maintenance of the works and the Contractor shall carry out and be bound by the same.

e) Order deviations in Part II and III of this Contract. All such deviation orders shall be in writing and shall show the financial effect, if any, of such deviation and whether any extra time is to be allowed. The rates to be applied for such Deviation Order shall be the same for those appearing in Company's Schedule of Rate in force on the date of issue of such Deviation Order, to which the contractor has no objection.

4. The Contractor shall have no claim against the company in respect of any work which may be withdrawn but only for work actually completed under this contract. The contractor shall have no objection to carry out work in excess of the quantities stipulated in Part-II. During the actual execution of the contract, if any, additional items (deviation items) are required, which are not covered in the tender, payment of such items shall be made at the current OIL schedule of rate. In case of positive variation in quantity of any items for the quantity mentioned in the schedule of work during the actual execution of work, the contractor will have to carry out the positive varied quantity at the contract rate, or internally estimated rate whichever is lower.

5. The Company reserves the right to cancel this Contract at any time upon full payment of work done and the value of the materials collected by the contractor for permanent incorporation in the work under this contract particularly for execution of this contract up to the date of cancellation of the Contract. The valuation of the work done and the materials collected shall be estimated by the company's Engineer in presence of the contractor. The Contractor shall have no claim to any further payment whatsoever. The valuation would be carried out exparte if Contractor fails to turn up despite reasonable notice which will be binding on the Contractor.

6. The Contractor hereby undertakes to indemnify the Company against all claims which may arise under the under noted Acts:-

- I. The Mines Act.
- II. The Minimum Wages Act, 1948.

- III. The Workman's Compensation Act, 1923.
- IV. The Payment of wages Act, 1963.
- V. The Payment of Bonus Act, 1965.
- VI. The Contract Labour (Regulation & Abolition) Act, 1970 and the rules framed there under.
- VII. Employees' Pension Scheme, 1995.
- VIII. Inter-State Migrant (Regulation of Employment and Condition of Service) Act. 1979.
- IX. The Employees Provident Fund and Miscellaneous Provisions Act, 1952.
- X. VAT Act.
- XI. Service Tax Act.

or any other Acts or Statute not here in above specifically mentioned having bearing over engagement of workers directly or indirectly for execution of work. The Contractor shall not make the Company liable to reimburse the Contractor for the statutory increase in the wage rates of the Contract Labour appointed by the Contractor. Such Statutory increase in the wage rates of Contract Labour shall be borne by the contractor.

7. The Contractor shall clear away all rubbish and surplus material from the site on completion of work and shall leave the site clean and tidy.

8. The Contractor must complete the work within 78 weeks of the written order to commence work. During the currency of the job, the work progress must be commensurate with the time elapsed. In the event of any delay on the contractor's part, he/she will be liable to pay to the company liquidated damages at the rate of 1/2% (Half p.c ) per week of the contract price of the item(s) delayed in completion and the maximum value of the liquidated damage will be 7.5% of the contract price of the item(s) delayed provided the item(s) delayed are not critical for commissioning and final utilization of the work. If, however, the item(s) delayed in completion are critical for commissioning and final utilisation of the work then the contractor will be liable to pay liquidated damages by way of penalty at the rate of 1/2% (Half percent) per week of delay of the total contract cost subject to a maximum of 7.5% of total contract cost.

The Chief Engineer's certificate as to the criticality or otherwise of an item shall be final.

The payment of liquidated damages/penalty may be reduced or waived at the sole discretion of the Company whose decision in this regard will be final.

In the event of there being undue delay in execution of the Contract, the Company reserves the right to cancel the Contract and / or levy such additional damages as it deems fit based on the actual loss suffered by the company attributable to such delay. The company's decision in this regard shall be final.

9. In order to promote, safeguard and facilitate the general operational economic in the interest of the Company during the continuance of this contract the Contractor hereby agrees and undertakes not to take any direct or indirect interest and or support, assist, maintain or help any person or persons engaged in antisocial activities, demonstration, riots , or in any agitation prejudicial to the Company's interest and Contractor

any such even taking shape or form at any place of the Company's works or and its neighbourhood.

10. The tendered all-inclusive Price (i.e. the Contract price) is ` \_\_\_\_\_ **(Not to be filled up by bidder while submitting the offer in c-Folder. This figure will be filled up by OIL at the time of award of the contract to the successful bidder.)**  
(` \_\_\_\_\_ only.)

but the Company shall pay the Contract or only for actual work done at the all inclusive rates set down in the Schedule of work part II of this Contract.

On account payment may be made, not oftener than monthly, up to the amount of 92.5% of the value of work done. Final payment will be made only after satisfactory completion of the work. Such final payment shall be based on the work actually done allowing for deviations and any deductions and the measurement shall be checked and certified correct by the Company's Engineer before any such final payment is made.

11. The contractor employing 20 (twenty) or more workmen on any day preceding 12 months shall be required to obtain requisite licence at his cost from the appropriate Licensing Officer before undertaking any Contract work. The Contractor shall also observe the rules & regulations framed under the Contract Labour (Regulation & Abolition) Act.

12. Wages shall be paid by the Contractor to the workmen directly without any intervention of any Jamadars or Thekaders and that the Contractor shall ensure that no amount by way of commission or otherwise be deducted/ recovered by the Jamadar from the wages of the workmen.

13. The Company for any reason whatsoever and of which the company shall be sole judge may terminate this Contract with a 24 hours notice in writing to the Contractor and in the event of Company's so doing the clause 5 here of shall prevail and the accounts between the parties will be in accordance therewith finalised.

14. The Contractor will not be allowed to construct any structure (for storage / housing purpose) with thatch, bamboo or any other inflammable materials within any company's fenced area.

15. The Contractor shall ensure that all men engaged by him/her are provided with appropriate protective clothing and safety wear in accordance with regulation 89(a) and 89(b) in the Oil mines Regulations 1984. The Company's representative shall not allow/accept those men who are not provided with the same.

16. All Statutory taxes levied by the Central and State Government or any other competent authority from time to time will be borne by Contractor and the amount of the contract specified in the contract is inclusive of all tax liabilities.

17. The Contractor shall deploy local persons in all works.

18. The Contractor shall not engage minor labour below 18(eighteen) years of age under any circumstances.

19. The Contractor and his/her workmen shall strictly observe the rules and regulations as per Mines Act. (Latest editions).

20. **Special Conditions** :

a) The amount of retention money shall be released after 6(six) months from the date of issue of completion certificate from concerned department.

b) The contractor will be required to allow OIL Officials to inspect the work site and documents in respect of the workers' payment.

c) Contractor(s) whosoever is liable to be covered under the P.F. Act and contract cost is inclusive of P.F., must ensure strict compliance of provisions of Provident Fund and Miscellaneous Provisions Act, 1952 in addition to the various Acts mentioned elsewhere in this contract. Any contractor found violating these provisions will render themselves disqualified from any future tendering. As per terms of the contract, if applicable, the Contractor must deposit Provident Fund Contribution (covering Employee's & Employer's share) with the competent authority monthly under their direct code. The Contractor shall be required to submit documentary evidence of deposit of P.F. Contribution to the Company. In case of failure to provide such documentary evidence, the Company reserves the right to withhold the amount equivalent to applicable P.F. Contribution.

d) In case P.F. is not included in the contract cost and later on required to be deposited by the Contractor, the same will be reimbursed on production of documentary evidence of depositing the same to the authority concerned. 12% P.F. will be applicable on the wage component of the contract cost. The following points are incorporated in the contract based on Contractor's declaration at the time of submission of offer against this contract.

(i) 12% P.F. is included / not included in the contract cost.

(ii) Wage component of the contract cost is 15.61 %.

e) As per Service Tax Act, the contractors are required to furnish service Tax Invoices Containing the following details:

(i) Name, address and registration No of the contractor

(ii) Name and address of the service recipient i.e. OIL

(iii) Description and value of taxable services and the service Tax payable thereon

Note: In absence of Service Tax invoices, Service Tax will not be reimbursed and the consequences of the same shall entirely rest upon the Contractors

The Contractor shall have to submit Invoice of Service Tax as per the following Format:

Format of Invoice (As per Rule 4A (1) of the Service Tax Rule's 1994)



**TAX INVOICE**

Name of the Service Provider.....

Address of the Service Provider.....

Service Tax Regn. No of the service provider.....

Name &amp; address of the Service Receiver

Oil India Limited, Duliajan, Assam

Invoice Serial No.....

Invoice Date.....

Particulars	Amount (Rs)
Description of the service provided or agreed to be provided (e.g. AMC Bill against Contract No.....for the period.....)	A
Add service Tax 15 % on (A) above (In case of taxable value of service is not 100 %, than specify the value of taxable service and apply 15 % of the qualifying amount) (e.g. if the value of service is only 40%, than service tax should be calculated at 15 % on 40% of the value declared at (A) above.)	B
Total amount (Including service Tax) (A + B)	C
Less: Service Tax Payable by Oil India Limited under reverse charge	D
Net Bill Amount	E

Signature of Proprietor/partner

**21. ARBITRATION:**

Any dispute under this contract will be settled through Arbitration as per Indian Arbitration and Conciliation Act, 1996.

Place of Arbitration: Duliajan, Dibrugarh, Assam.

**22. FORCE MAJEURE:**

Force Majeure (exemption) Clause of the International Chamber of Commerce (ICC Publication No. 421) is hereby incorporated in this contract.

**23. I.B. VERIFICATION REPORT AND SECURITY REVIEW:**

Contractor will be required to submit the verification report to ascertain character and antecedents from the Civil Administration towards the persons engaged under this contract to the Head of the user Department before engagement.

24. In case of any doubt or dispute as to the interpretation of any clause herein contained, the decision of the Company's Engineer shall be final and binding on the contractor.

**25. SET OFF CLAUSE:-**

"Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of a sum of money arising out of this contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited)."

**26.0 FURNISHING FRAUDULENT INFORMATION/DOCUMENT:**

If it is found that a Bidder/Contractor has furnished fraudulent document/information, the Bid Security/ Performance Security shall be forfeited and the party shall be debarred as per the "Guidelines for Banning business Dealings".

**27.0 LIQUIDATED DAMAGES FOR DELAY IN MOBILISATION AND/ OR COMPLETION OF WORKS AND SERVICES**

27.1 In normal case of works /service contracts, liquidated damages will be applicable @ 0.5% of the contract value per week or part thereof, for delay in contract mobilization /completion date subject to a maximum ceiling of 7.5% of contract value .

IN WITNESS whereof the parties hereunto set their hands seals the day and year first written above:-

SIGNED & DELIVERED FOR AND  
ON BEHALF OF

-----  
(Signature of Contractor or his legal Attorney)

By the hand of

-----  
(Full Name of Signatory)

-----  
It's Partner/Legal Attorney

-----  
(Seal of Contractor's Firm)

And in presence of

-----  
(Signature of witness)

-----  
Date: \_\_\_\_\_

-----  
(Full Name of Signatory)

Address:

-----  
-----  
(Signature of Acceptor)

SIGNED & DELIVERED FOR & ON  
BEHALF OF OIL INDIA LIMITED

Designation \_\_\_\_\_

Date \_\_\_\_\_

**Part-II SOQ**

OIL INDIA LIMITED  
(A Govt. of India Enterprise)  
Duliajan, Assam  
**WORKS CONTRACT**

**E-Tender No.: CDI3097P17**

Sl no	Description of Work	Quantity	UOM	Currency	Rate
	<b>Group A SEC-A</b>				
10	Demolishing lime concrete manually/ by mechanical means and disposal of material within 50 metres lead as per direction of Engineer-in-charge	35.97	M3	INR	262.46
20	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in-charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	11.99	M3	INR	752.05
30	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. In cement mortar	19.28	M3	INR	634.97
40	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge: Upto 150 mm diameter	268.60	M	INR	140.68
50	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge In lime mortar with old mughal bricks	20.70	M	INR	548.59
60	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	35.71	M3	INR	146.57
70	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	35.71	M3	INR	93.91

Sl no	Description of Work	Quantity	UOM	Currency	Rate
80	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level : 1:3:6 (1 Cement : 3 sand : 6 graded stone aggregate)	2.85	M3	INR	3869.17
90	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor, etc., up to floor five level, excluding the cost of centering, shuttering and finishing : 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate)	15.03	M3	INR	4719.06
100	Providing and laying damp-proof course 40 mm thick with cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 12.5 mm nominal size).	7.03	M2	INR	179.26
110	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : 1:1.5:3 (1 cement : 1.5 sand : 3 graded stone aggregate)	10.15	M3	INR	3821.98
120	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 sand : 3 graded stone aggregate)	116.69	M3	INR	4540.24
130	Centering and shuttering including strutting, propping etc. and removal of form for : Foundations, footings, bases of columns, etc. for mass concrete	26.64	M2	INR	187.04
140	Centering and shuttering including strutting, propping etc. and removal of form for : Suspended floors, roofs, landings, balconies and access platform	600.43	M2	INR	348.76
150	Centering and shuttering including strutting, propping etc. and removal of form for : Lintels, beams, plinth beams, girders, bressumers and cantilevers	552.58	M2	INR	293.90
160	Centering and shuttering including strutting, propping etc. and removal of form for : Columns, Pillars, Piers, Abutments, Posts and Struts	423.66	M2	INR	409.73
170	Centering and shuttering including strutting, propping etc. and removal of form for : Stairs, (excluding landings) except spiral-staircases	48.97	M2	INR	365.68

Sl no	Description of Work	Quantity	UOM	Currency	Rate
180	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 sand)	3.13	M3	INR	5325.84
190	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level. Cement mortar 1:4 (1 cement :4 sand)	587.94	M2	INR	696.17
200	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. Thermo-Mechanically Treated bars	14327.91	KG	INR	69.76
210	12 mm cement plaster of mix : 1:4 (1 cement: 4 sand)	640.78	M2	INR	102.65
220	15 mm cement plaster on rough side of single or half brick wall of mix : 1:4 (1 cement: 4 sand)	1493.20	M2	INR	117.93
230	6 mm cement plaster 1:3 (1 cement : 3 fine sand) finished with a floating coat of neat cement and thick coat of Lime wash on top of walls when dry for bearing of R.C.C. slabs and beams.	951.81	M2	INR	110.90
240	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade : New work (two or more coats) over and including water thinnable priming coat with cement primer	710.97	M2	INR	74.75
250	Finishing walls with water proofing cement paint of required shade : New work (Two or more coats applied @ 3.84 kg/10 sqm)	2721.37	M2	INR	50.38
260	Painting with silicon & acrylic emulsion based water thinnable sealer of approved brand and manufacture on wet or patchy portion of plastered surfaces : Two coats	640.78	M2	INR	87.25
270	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	97.84	M2	INR	88.31
280	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand), including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm	818.70	M2	INR	1401.33

Sl no	Description of Work	Quantity	UOM	Currency	Rate
290	Chequered terrazo tiles 22 mm thick with graded marble chips of size up to 6 mm in floors, jointed with neat cement slurry mixed with pigment to match the shade of the tiles, including rubbing and polishing complete, on 20 mm thick bed of cement mortar 1:4 (1 cement :4 sand) : Light shade pigment using white cement	84.75	M2	INR	848.83
300	"Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate)	43.96	M3	INR	3215.88
310	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	575.04	M2	INR	734.20
320	"Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)"	1622.67	KG	INR	455.56

Sl no	Description of Work	Quantity	UOM	Currency	Rate
330	"Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side "	48.27	M2	INR	1046.06
340	"Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.50 mm thickness"	58.58	M2	INR	1015.07
350	"Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 4.0 mm thickness "	36.59	M2	INR	812.90
360	"Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Sal wood "	0.79	M3	INR	76934.82
370	"Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws "	43.68	M2	INR	2224.37
380	"Providing and fixing factory made ISI marked steel glazed doors, windows and ventilators, side /top /centre hung, with beading and all members such as F7D, F4B, K11 B and K12 B etc. complete of standard rolled steel sections, joints mitred and flash butt welded and sash bars tenoned and riveted, including providing and fixing of hinges, pivots, including priming coat of approved steel primer, but excluding the cost of other fittings, complete all as per approved design, (sectional weight of only steel members shall be measured for payment). Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) "	2456.80	KG	INR	107.92

Sl no	Description of Work	Quantity	UOM	Currency	Rate
390	"Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with : 4.0 mm thick glass panes "	105.95	M2	INR	737.14
400	"Providing and fixing sheet covering over expansion joints with iron screws as per design. Aluminium fluted strips 3.15 mm thick. 150 mm wide "	57.30	M	INR	350.05
410	"Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes. 110 mm diameter "	557.00	M	INR	231.87
420	"Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. Coupler 110 mm "	9.00	EA	INR	145.97
430	"Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. Single pushfit Coupler 110 mm "	9.00	EA	INR	183.74
440	"Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. Single tee with door 110x110x110 mm "	9.00	EA	INR	338.51
450	"Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. Bend 87.5° 110 mm bend "	9.00	EA	INR	175.89
460	"Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion. Shoe (Plain) 110 mm Shoe"	9.00	EA	INR	321.70



Sl no	Description of Work	Quantity	UOM	Currency	Rate
470	"Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid "	3.00	EA	INR	3233.33
480	"Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings : Flat back wash basin of size 630x450 mm "	4.00	EA	INR	1001.40
490	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete	4.00	EA	INR	382.44
500	"Providing and fixing PTMT bib cock of approved quality and colour. 15 mm nominal bore, 122mm long, weighing not less than 99 gms"	5.00	EA	INR	197.86
510	"Providing and fixing PTMT stop cock of approved quality and colour. 15 mm nominal bore, 86 mm long, weighing not less than 88 gms "	5.00	EA	INR	145.80
520	"Providing and fixing PTMT pillar cock of approved quality and colour 15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms "	5.00	EA	INR	310.71
530	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	4.00	EA	INR	201.84
540	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.	4.00	EA	INR	755.41
550	"Providing and fixing toilet paper holder : C.P. brass"	4.00	EA	INR	281.24

Sl no	Description of Work	Quantity	UOM	Currency	Rate
560	"Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour. 600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms"	6.00	EA	INR	465.31
570	"Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : One urinal basin with 5 litre white P.V.C. automatic flushing cistern"	6.00	EA	INR	3187.72
580	"Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet : 250x130x30 mm "	6.00	EA	INR	156.28
590	"Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete. 10 litre capacity - White "	2.00	EA	INR	932.31
600	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.	2.00	EA	INR	1723.47
610	"Providing and fixing soil, waste and vent pipes : 100 mm dia Sand cast iron S&S pipe as per IS: 1729 "	9.90	M	INR	822.93
620	"Providing and fixing single unequal junction of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete : 100x100x75 mm Sand cast iron S&S as per IS - 1729"	3.00	EA	INR	552.11
630	"Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. External work 15 mm nominal outer dia Pipes"	200.00	M	INR	137.01

Sl no	Description of Work	Quantity	UOM	Currency	Rate
640	"Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge. External work 20 mm nominal outer dia Pipes"	200.00	M	INR	157.35
650	Providing and fixing 18 mm thick, 150 mm wide pelmet of coir veneer board ISI marked IS : 14842, including top cover of 6 mm coir veneer board, nickle plated M.S. Pipe 20 mm dia. (heavy type) curtain rod with nickel plated brackets, including fixing with 25x3 mm M.S. Flat 10 cm long fixed to pelmet with hollock wood cleats of size 100 mm x 40 mm x 40 mm on both inner side of pelmet and rawl plugs 75 mm long etc. all complete	85.00	M	INR	455.84
660	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	11.00	EA	INR	529.25
670	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	11.00	EA	INR	1100.25
680	"Providing and fixing chromium plated brass handles with necessary screws etc. complete 125 mm"	80.00	EA	INR	216.07
690	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete : 300x16 mm	11.00	EA	INR	228.40
700	"Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete. Twin rubber stopper"	11.00	EA	INR	80.19
710	"Steel work in built up tubular ( round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes"	5008.50	KG	INR	95.37

Sl no	Description of Work	Quantity	UOM	Currency	Rate
720	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	40.00	EA	INR	119.13
730	"Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Anodized (AC 15) aluminium "	132.00	EA	INR	56.60
740	"Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with : 12.5 mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I"	102.85	M2	INR	774.85

Sl no	Description of Work	Quantity	UOM	Currency	Rate
	<b>Group B SEC-A</b>				
10	<b><u>Point wiring 2x1.5 sq. mm+1x1.5 sq cs.cap:</u></b> Wiring for light point/ fan point/ exhaust fan point/ call bell point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in surface/recessed using ISI approved 25mm size PVC casing capping & accessories, suitable PVC box as required.( Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green)).Make of cable: Havells/Finolex/L&T/Polycab or any BIS approved make.; Make of PVC casing capping: AKG/Presto Plast/Press fit or any BIS approved make.	171.00	P	INR	1263.00
20	<b><u>Lightplug point wiring 2x1.5 sqm cs. cap:</u></b> Wiring for light plug point with 3 nos Single core 1.5 sq.mm size FRLS PVC insulated copper cable in surface/recess using ISI approved 25mm size PVC casing capping & accessories, etc as required.( Colour codes – Phase –R/Y/B; Neutral –Black & Earth- Green).Make of cable: Havells/Finolex/L&T/Polycab or any BIS approved make; Make of PVC casing capping: AKG/Presto Plast/Press fit or or any BIS approved make.	638.00	M	INR	190.00
30	<b><u>Circuit wiring 2x2.5 sqmm+1x2.5sqmm cs.cp:</u></b> Wiring for circuit/ sub main from MCB DB to desired Switch Board with 3 nos Single core 2.5 sq.mm size FRLS PVC insulated copper cable in surface/recess using ISI approved 25mm size PVC casing capping & accessories, ( Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green).Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make,Make of PVC casing capping : AKG/Presto Plast/Press fit or or any BIS approved make.	677.00	M	INR	239.00
40	<b><u>Power wiring 2x4sqmm+1x4sqmmPVCwrccs.cp:</u></b> Wiring for circuit/ sub main/Power wiring from MCB DB to desired Switch Board/power point with 3 nos Single core 4 sq.mm size FRLS PVC insulated copper cable in surface/recess using ISI approved 25mm size PVC casing capping & accessories, ( Colour codes : Phase –R/Y/B; Neutral –Black & Earth- Green). Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make ,Make of PVC casing capping : AKG/Presto Plast/Press fit or any BIS approved make.	1056.00	M	INR	302.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
50	<b>Circuit Wiring 2x10sqmm+1x10 sqmmPVCwr:</b> Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 3 nos Single core 10 sq.mm size FRLS PVC insulated copper cable in surface/recess using medium grade ISI approved 32mm size PVC casing capping & accessories, (Colour codes: Phases - R, Y, B; Neutral –Black & 2 Nos Earth-Green)).Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make, Make of PVC casing capping : AKG/Presto Plast/Press fit or any BIS approved make	132.00	M	INR	592.00
60	<b>Circuit Wiring 4x16+2x16sqmm PVCwr cs.cp:</b> Wiring for circuit/ sub main wiring from Main panel to DB, DB to MCB DB with 6 nos Single core 16 sq.mm size FRLS PVC insulated copper cable in surface/recess using medium grade ISI approved 50mm size PVC casing capping & accessories, (Colour codes: Phases - R, Y, B; Neutral –Black & 2 Nos Earth-Green)).Make of cable :Havells/Finolex/L&T/Polycab or any BIS approved make, Make of PVC casing capping : AKG/Presto Plast/Press fit or any BIS approved make.	264.00	M	INR	1676.00
70	<b>S/F of 3 Module Switchboard:</b> "Supplying , fixing and installation of 3 modules PVC Box along with modular base & cover plate for modular switches in Surface etc as required.Internal connection of wire is included in the item. Modular type Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate.The configurations for the relevant plate are defined as under: A- Number of Rows: 1. B- Number of openings:3. C- Size of opening.: 1M Internal connection of wire is included in the item.Make: Legrand/L&T/Scheider/Crabtree/Indo Asian(Elvira)."	13.00	NO	INR	219.00
80	<b>S/F of 8Module Switchboard:</b> "Supplying , fixing and installation of 8 modules PVC Box along with modular base & cover plate for modular switches in Surface etc as required.Internal connection of wire is included in the item.Frame Plate with matching Cover Plate suitable for above Switch Board Box suitable to accommodate specified number of electrical accessories. Frame Plate shall be made out of polycarbonate. The configurations for the relevant plate are defined as under: A- Number of Rows: 1 B- Number of openings:8 C- Size of opening.1M Make of Modular item:Legrand/L&T/Scheider/Crabtree/Indo Asian(Elvira)."	32.00	NO	INR	387.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
90	<p><b><u>Supplying and fixing of 6 A S/Socket:</u></b>  "Supplying and fixing of 3 module PVC Box with modular plate and cover in front on surface , including providing and fixing 3 pin 6 amps modular socket outlet and 6 amps modular switch, connection etc. as required.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&amp;3.The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1,2&amp;3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.Make of Modular item:Legrand/L&amp;T/Scheider/Crabtree/Indo Asian(Elvira)."</p>	128.00	NO	INR	359.00
100	<p><b><u>Supplying and fixing 16 A S/Socket:</u></b>  Supplying and fixing of 4 module PVC Box with modular plate and cover in front on surface or in recess, including providing and fixing 5 pin 6 &amp;16 amps modular socket outlet and 16 amps modular switch, connection etc.Modular type switch shall be ISI marked switch modular,unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007. Modular socket outlet, flush type mounting, non-shuttered type for 250V,50Hz. supply and conforming to IS:1293/ 2005 with amendments No.1,2&amp;3.The dimensions shall be as per annexure `A of IS: 1293/2005 with amendments No.1,2&amp;3 Note:-Dimensions and withdrawal force values for 2-pin sockets and 5-pin sockets shall be as per IS:1293.Make of Modular item ::Legrand/L&amp;T/Scheider/Crabtree/Indo Asian(Elvira) .</p>	42.00	NO	INR	492.00
110	<p><b><u>Supply and fixing of 20 A Metallic S/Soc:</u></b>  Supplying and installation of recess type 20A metallic plug/socket DB complete with 20A Plug and Socket and 20 A DP RCBO,30mA sensitivity for AC. Make: Legrand/Siemens/Havells/Indo Asian/Schneider .</p>	11.00	NO	INR	5730.00
120	<p><b><u>Supply and fixing of 6 A Modular Switch:</u></b>  Supply, installation and fixing of 6 A Modular switch in the existing modular boxes.Modular type switch shall be ISI marked switch modular, unenclosed, push / piano type suitable for flush mounting with screw type terminals suitable for 250V, 50Hz. supply and conforming to IS: 3854/1997 Reaffirmed 2007 Make of Modular switch :Legrand/L&amp;T/Scheider/Crabtree/Indo Asian(Elvira).</p>	171.00	NO	INR	86.00



Sl no	Description of Work	Quantity	UOM	Currency	Rate
130	<b>Supply and fixing of ceiling rose:</b> Supplying and fixing 3 pin, 5 amp ceiling rose of IS approved make.	171.00	NO	INR	53.00
140	<b>Supply &amp; fixing Modular Regulator 100W:</b> Supply, installation and wiring of 1 Module step Fan Regulator 100W. Electronic Fan regulator step type (Capacitor Type) with minimum 4 steps (5 position) flush mounting type to IS:11037/1984 (Reaffirm 2005) suitable for electric ceiling fan of voltage 230V, AC, 50 Hz having wattage up to 100 Watts Max. The capacitor used shall be of standard make. Make: Legrand/L&T/Crabtree/Schneider/Indo Asian (Elvira) ."	31.00	NO	INR	359.00
150	<b>Supply &amp; Fixing of Ceiling Fan, 1400 mm:</b> Supply, Installation and commissioning of 1400 mm sweep ceiling fan without modular step regulator, including wiring the down rods of standard length (upto 30 cm). Fan shall have double bearing with minimum air delivery shall be 230 CMM. Minimum Power input shall be 60 W. Make of fan: Havell/Crompton Greaves/Bajaj/Orient.	31.00	NO	INR	2830.00
160	<b>Supply &amp; Fixing of Exhaust Fan, 300 mm:</b> Supply, Installation and commissioning of 300 mm sweep, 900±10% PM heavy duty metallic exhaust fan in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connection, testing, commissioning etc. as required. Minimum power input shall be 50 W. Pre-lubricated double ball bearing for maintenance free running and conforming to IS 2312-1967 with latest amendment. Make of fan: Havells/Crompton Greaves/Bajaj/Orient	4.00	NO	INR	4469.00
170	<b>Supply &amp; Fixing of LED (1x4) type fitting:</b> Supply, Installation, testing and commissioning of high performance suspended mounting, LM-79 certified luminaire & LM-80 certified LED with aluminium extruded channel & white powder coating fitting. Fitting shall be with high translucent diffuser & white optics reflector for glare free light distribution with 40 +/-10% w system wattage, system efficacy >85 lm/W. THD <10% and PF is >0.9. Colour temperature shall be in between 5500 to 6500 K. The driver shall be external type and minimum burning hours shall be 40000 Hrs. The fitting shall be complete with all accessories etc., including supplying and fixing ball and socket arrangement, 2 no. down rods of 20 mm dia X 1.6 mm thick steel conduit upto 75 cm length, painting and wiring the down rods and connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required. Make: Philips/Crompton/GE/Bajaj/Havells/Surya/Syska/HPL. For rooms.	67.00	NO	INR	7892.00



Sl no	Description of Work	Quantity	UOM	Currency	Rate
180	<b><u>Supply and fixing of Led 2x2 Luminaires:</u></b> Supply,Installation, testing and commissioning of recessed type 35 to 40 W Cool LED CRCA powder coated housing LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories for fixing in the Grid/POP type ceiling including supplying, fixing arrangement and connection with 3x1.5 sq. mm FR PVC insulated,copper conductor, single core cable and earthing etc. as required.The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection up to 2.5kV, Voltage range of 140V - 240V, PF >0.9, THD <10%. Minimum output Lumen shall be 3400 and colour temperature shall be 5500K to 6500K.Driver shall be external and minimum burning hours shall be 40000 Hrs. Make:Philips/Crompton/GE/Bajaj/Havells/HPL//Surya/Syska. For Conference Room.	13.00	NO	INR	7369.00
190	<b><u>Supply and fixing of 4ft LED batten fitt:</u></b> Supply,Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 4ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1800 Lumen with max.20 +/-10% w system wattage. and CCT 6500k, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours.The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%. Make:Make:Philips/Crompton/GE/Bajaj/Havells/Surya/Syska/HPL . For Balcony, Stairs, Dressing Room.	31.00	NO	INR	1111.00
200	<b><u>Supply and fixing of 2ft LED batten fitt:</u></b> Supply,Installation, testing and commissioning of surface mounting Powder coated, Aluminum extrusion housing, IP20 Diffused Acrylic glass fitted 2ft LED Batten LM-79 certified luminaire & LM-80 certified LED complete with all mounting accessories. The product should have an even light distribution with system lumen greater than 1800 Lumen with max.10 W +/-10% w system wattage. and CCT 6500k, CRI >80 and system efficacy >90 lm/W. Lifetime should be at least 40000 hours.The product should have an Electronic constant current driver with Open & Short circuit protection, reverse polarity protection and surge protection, PF >0.9, THD <10%. Make:Make:Philips/Crompton/GE/Bajaj/Havells/Surya/Syska/HPL . For Toilets.	7.00	NO	INR	949.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
210	<b><u>Supply and fixing of 15W LED Spot Light:</u></b> Supply, Installation, testing and commissioning of 15 W LED recessed low down lighter, constant current and integrated driver in heat shrinkable die cast housing with high efficiency diffuser glass with LM-79 certified luminaire & LM-80 certified LED including fixing arrangement above false ceiling, wiring and connection with 1.5 sqmm FR PVC insulated, copper conductor, single core cable and earthing etc as required. Minimum lumen output shall be 1200 with variation of 10% and CCT shall be 5500 to 6500K. CRI shall be more than 70% and THD is less than 10%. Make:Make:Philips/Crompton/GE/Bajaj/Havells/Surya/Syska/HPL	18.00	NO	INR	3097.00
220	<b><u>Supply&amp;Fixing Snglephs 63A MCB DB,16wy:</u></b> Supplying,installation and fixing of 16 WAY SPN MCB DB with double door , single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface , complete with 100 A tinned 12 way copper busbar, 12 way neutral busbar, 12 way earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required.DB shall have following as incomer :63 A RCBO, sensitivity 100mA -1 nos.Outgoings are 10 A MCB ,C curve-6 nos,20 A MCB,C curve- 6 nos.Make of RCBO, MCBs and box shall be of same make and shall be Schneider/ Siemens/Indo Asian/Legrand or DB shall be similar to Legrand cat no- 6077 13	2.00	NO	INR	11692.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
230	<p><b>Sply,Instln,Tstng&amp;cmsning 3 Phs 8wTPN DB:</b></p> <p>3 phase 8 way 63A MCB DB: 3 phase 8 way TPN prewired MCB DB with double door of following specification: DB shall be as per IS 8623, Suitable for Flush mounting and surface mounting application with 100 A copper busbar for each phase, with neutral bar, earth bar and cable ties for cable management, fully insulated busbar and neutral bar. DB shall have proper arrangement for door earthing and corner shields for better protection, Pan assembly for ease of installation, masking sheet, reversible doors, with provision for four pole MCB/Isolator/RCCB/RCBO as incomer and SP MCB as outgoing, supplied with wire set and MCBs. Wires shall be FRLS copper single core cables of sufficient capacity. DB shall have protection against mechanical impact, minimum protection index shall be IK 09 with acrylic door of IEC-62262 and Ingress protection of IP43. Limiting dimensions of DB shall be: front side length with door: 700 mm, breadth: 500 mm and depth 70 mm. Knockouts on the top shall be of following dimensions: 1 no., 32 mm dia; 8 nos., 25 mm dia. Knockouts on bottom shall be of following dimensions: 1 no., 32 mm dia; 8 nos., 25 mm dia. Knockouts on both sides shall be of following dimensions: 1 no. 32 mm dia and 2 nos., 25 mm dia. Part 1:DB shall have 63 A, 100 mA RCBO as incomer as per IS: 12460 with latest ammendments, Part 2. Outgoing distribution in each phase shall consist of 8 nos. of MCB (4 nos. of 10 A and 4 nos. of 20 A MCB), all C curve, 10 KA capacity; total no. of MCBs in DB- 24 nos. All MCBs shall be as per IS/IEC 60947-2. Make: Legrand/Siemens/Schneider/Indo-Asian/Havells.</p>	4.00	NO	INR	18306.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
240	<p><b><u>Sply,Instln,Tstng&amp;cmsning 3Phs 8wVTPN DB:</u></b>  Supply,Installation,Testing &amp; commissioning of 3 Phase 8 way VTPN DB"  SHORT TEXT: 160 A, 8 W, VTPN MCCB DB  Detailed description:  Supply of 3 Phase, 8 WAY, vertical TPN MCCB DB, as per the following specifications:  A. Incoming:  a. 160 A Thermal adjustable MCCB: 1 no  b. Rating: 4 pole, 160 A, 25kA, 50Hz, 415VAC  c. Protection: Thermal and Magnetic Protection adjustable.  d. Make &amp; Model : Legrand, Cat no 4200 57 or equivalent  B. Outgoing Feeders:  a. 63 A TP C curve MCB: 4nos  b. 63 A SP C curve MCB: 12 nos  c.  All outgoing MCBs shall be 'C' curve, 240v AC, 10kA breaking capacity, with DMC housing, suitable for class-II tropicalisation (as per IEC) &amp; approved by ISI or IEC. MCBs shall have integrated label holder, biconnect upper &amp; lower terminals &amp; air channels for low temperature rise.  C. Bus bar: 250 A, Tinned Copper  D. Constructional details of DB:  DB shall be as per IS-8623 with latest amendment. DB shall have external earth terminal &amp; mounting holes. Cable ties &amp; wire leads for wiring incomer MCCB to respective phase &amp; neutral buses shall be supplied and wired with single core 35 sqmm stranded copper cable with tinned copper lugs.  Enclosure shall be IP-43&amp; IK-09 with double door. DB shall have detachable cable entry gland plate on top and bottom side for keeping spare length of cables. All wires inside DB shall have ferrules for identification of circuit number.  All unused openings shall be fitted with Blanking Plates.  The DB shall be provided with 250 amp tinned copper bus bar for phase &amp; neutral. Neutral &amp; Earth bar shall be 8 way each &amp; suitable for termination of wires with pin type cable lugs  (MAKE &amp; Model No: Legrand, Cat no. 6079 14 or Equivalent Schneider/Siemens/Indo Asian/ABB/L&amp;T"</p>	2.00	NO	INR	39671.00
250	<p><b><u>Supply &amp; Fixing 200x250x48 mm PVC brd:</u></b>  "Supply and fixing of PVC switchboard with cover &amp; screws, approved and marked by IS-14772. Colour- White. Size- 250mm x200mm x 48mm. Make:Presto plast/AKG"</p>	11.00	NO	INR	437.00
260	<p><b><u>Supply &amp; Fixing 175x100x48 mm PVC brd:</u></b> "Supply and fixing of PVC switchboard with cover &amp; screws, approved and marked by IS-14772. Colour- White. Size- 175 mm x100mm x 48mm.Make:Presto plast/AKG"</p>	45.00	NO	INR	370.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
270	<b><u>Supply &amp; fixing of of Earth electrode:</u></b> Earthing with G.I. earth pipe 3 metre long, 100 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required. Make of pipe: Jindal/Tata (DSR 5.2, 2014)	2.00	EA	INR	5110.00
280	<b><u>GI strip connection:</u></b> Supplying and laying 25 mm X 5 mm G.I strip at below ground as specified as strip earth electrode, including connection/ terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	66.00	M	INR	126.00
290	<b><u>Electrical Panel:</u></b> "SPECIFICATION FOR floor mounted MAIN INCOMER PANEL: Incomer panel shall be cubicle type, vermin proof, made with CRCA sheet with following specification: 2.0 PANEL COMPARTMENTS / SECTIONS: A) INCOMER SECTION: 2 nos. 400 Amps Four Pole, 25Ka MCCB with adjustable thermal magnetic release, a rotary handle operating mechanism & spreader links. One number multifunction digital meter of minimum size 96 mm x 96 mm x 65mm to measure the electrical parameters like max. demand, voltage, current, power, frequency, KWH, cumulative KWH and power factor shall be provided. B) BUS CHAMBER: The bus chamber shall be sheet steel clad having front bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity electrolytic E 91 E grade aluminium Bus Bars, conforming to IS: 5082. Current rating of bus bar sections shall be 800 Amps suitable for 415 V AC, 50 Hz system. Neutral bus shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves and shall be supported at required intervals with non-hygroscopic, non-deteriorating, and non-inflammable SMC / FRP supports having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec. The test certificate of a similar panel of the offered make for withstanding 50 kA for 1 sec shall be submitted along with the drawings for approval. All risers and connections from bus bar shall be done with same material as the main bus bars of current rating as per rating of individual cubicle switch. C) OUT GOING SECTION: Shall be provided with the following Four Pole, 16 kA, MCCB with adjustable thermal magnetic release, rotary handle operating mechanism & spreader links. i. 250 A MCCB – 2 NOS ii. 160 A MCCB – 6 NOS iii. Each outgoing feeder shall be equipped with a digital ammeter and voltmeter similar to Conzerv™ DM3000/DM1000 of Schneider make. D) CABLE CHAMBER / CABLE ALLEY: Suitable cable alleys shall be provided in between sections of the panel to drive the cables.	1.00	NO	INR	621929.00

Sl no	Description of Work	Quantity	UOM	Currency	Rate
	<p>Supports as required shall be provided along the cable alleys for supporting the cables / wires.</p> <p>E) All the incoming and outgoing cable connections shall be terminated to brought out terminals using spreader links in all MCCBs</p> <p>F) All accessories like Gland/Lugs/Thimble etc .required for installation shall be supplied by Contractor.</p> <p>G) MCCB make: LEGRAND/ INDOASIAN/SCHNIDER/L&amp;T/SIEMENS</p> <p>H) The panel shall be of any make having type test certificates for 50 Ka short circuit capacity for the bus bar.</p> <p>I) Labelling shall be done for all incoming and outgoing feeders.</p> <p>J) Painting of panel shall be 9(Nine) tank process.</p>				
300	<p><b><u>Sply,Instln,Tstng&amp;cmsning1.5TR AC(5 STR):</u></b></p> <p>Supply, Installation, Testing &amp; Commissioning of 1.5 TR Window Type AC (5 STAR)</p> <p>A) SPECIFICATION:</p> <p>Window mounted room air conditioner with minimum features:</p> <ol style="list-style-type: none"> <li>1. Capacity: 1.5 Ton</li> <li>2. Refrigerant: R410A/R22</li> <li>3. Condenser: Grooved copper tubing with blue fins.</li> <li>4. Operating mode: Both Manual &amp; Remote control with digital display.</li> <li>5. Noise level: Less than equal to 52dB at high speed fan mode.</li> <li>6. Filter: Side in / side out antibacterial filter.</li> <li>7. Operating voltage: 230V <math>\pm</math> 10%, single phase, 50 HZ, AC</li> <li>8. Star rating: Minimum 5 star rating of BEE table 2.3</li> </ol> <p>Make: VOLTAS / BLUE STAR / CARRIER / LLOYD/ HITACHI/ HAIER</p> <p>B) GUARANTEE:</p> <p>Air conditioner shall be waranteed for one year against any manufacturing defect and the compressor should be guaranteed for 5 years from the date of supply.</p> <p>C) DOCUMENTS:</p> <ol style="list-style-type: none"> <li>1. At the time of Offer: <ol style="list-style-type: none"> <li>i) Catalogue containing the features of offered make and model.</li> <li>ii) Valid authorized dealership certificate.</li> </ol> </li> <li>2. At the time of Supply: <ol style="list-style-type: none"> <li>i) Duly signed Guarantee certificate.</li> <li>ii) One set of operation &amp; maintenance manual against each unit.</li> </ol> </li> </ol> <p>AFTER SALES SERVICE:</p> <p>The bidder has to agree to provide after sales service. The bidder has to furnish the name and address of their service center/s authorized dealers at Duliajan/Tinsukia/Dibrugarh/Jorhat/Guwahati.</p>	10.00	NO	INR	43690.00

- **Bidder must include all liabilities including statutory liabilities in their quoted rates.**

Note: The Company's Internal Estimated Rates, as indicated in Part-II, are inclusive of all overheads, taxes, duties, levies etc. except P.F. & Service Tax.

**OIL INDIA LIMITED  
(A Govt. of India Enterprise)  
DULIAJAN (ASSAM)  
WORKS CONTRACT**

**Particular Specifications and Instructions:**

**DESCRIPTION OF WORK/SERVICES:** Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.

Note: Construction of Second floor will be extension of existing O.T. complex ground floor and first floor in use. Separate access to the second floor shall have to be made while executing the work.

**A. ANNEXURE = A: SCOPE OF CIVIL WORK**

1.00 GENERAL: All materials used in the work shall conform to the latest revision of the relevant Indian Standard Specifications to the extent practicable. Where no such specifications exist they shall be of the best quality available in the market. Wherever ISI certified materials and products are available these alone shall be used. All materials shall be stored at site in accordance with IS-4082-1996.

Unless specially provided for in the contract the tendered rates shall include the cost of carriage, transport, loading, unloading and stacking as directed for all materials required on the work. Where a tender provides a rate for transport of materials, it includes for all loading, unloading and stacking on the site in such position and manner as directed. Any materials found not conforming to specification must be removed from site within 48 hours.

2.00 SITE CLEARANCE, EXCAVATION AND DISPOSAL: Before the earthwork is started, the area coming under cutting and/refilling shall be cleared of shrubs, vegetation, grass, uprooting of tree stumps and such others, and rubbish removed upto a distance of 50 metres outside the periphery of the area under clearance. The rate of such site clearance is included in the rate of earthwork.

All excavations shall be done to the minimum dimensions as required for safety and working facility. Prior approval of the Engineer shall be obtained by the Contractor, in each individual case, for the method he proposes to adopt for the excavations including dimension, side slopes, shoring, dewatering, disposal, etc. This approval, however, shall not in any way make the Engineer responsible for any consequent loss or damage. The excavation must be carried out in the most expeditious and efficient manner.



The excavated spoils will be disposed off in any or all the following manners :

- a. By using it for backfilling straightway.
- b. By stacking it temporarily for use in backfilling at a later date during execution of the Contract.
- c.
  - i) By either spreading, Or
  - ii) Spreading and compacting at designated disposal areas.

3.00 STORAGE: Materials shall be transported, handled and stored at site carefully to the approval of Engineer so as to prevent any damage of any kind to be kept at his own risk and cost.

Cement shall be stored in a weather proof shed, the floor of which shall be raised 300 mm clear from the ground and 600 mm away from the wall all round in order to protect from rain and moisture. Empty cement bag shall be returned to the Company in good condition.

4.00 Dismantling and demolishing: The demolition shall always be well planned before hand and shall generally be done in reverse order of the one in which the structure was constructed.

Necessary propping, shoring and or under pinning shall be provided to ensure the safety of the adjoining work or property before dismantling and demolishing is taken up and the work shall be carried out in such a way that no damage is caused to the adjoining work or property. Wherever specified, temporary enclosures or partitions and necessary scaffolding with suitable double scaffolding and proper cloth covering shall also be provided, as directed by the Engineer-in-Charge.

Necessary precautions shall be taken to keep noise and dust nuisance to the minimum. The demolition work shall be proceeded with in such a way that it causes the least damage and nuisance to the adjoining building and the public.

Dismantling shall be done in a systematic manner. All materials which are likely to be damaged by dropping from a height or by demolishing roofs, masonry etc. shall be carefully removed first. Chisels and cutters may be used carefully as directed. The dismantled articles shall be removed manually or otherwise, lowered to the ground (and not thrown) and then properly stacked as directed by the Engineer-in-Charge.

Where existing fixing is done by nails, screws, bolts, rivets, etc., dismantling shall be done by taking out the fixing with proper tools and not by tearing or ripping off.

Any serviceable material, obtained during dismantling or demolition, shall be separated out and stacked properly as directed by the Engineer-in-Charge within a

lead of 50 metres. All unserviceable materials, rubbish etc. shall be disposed off as directed by the Engineer-in-Charge.

**5.00 CEMENT CONCRETE/REINFRCED CEMENT CONCRETE WORK:** All C.C. work in 1:3:6 proportions unless otherwise specified shall be done with 18 mm graded down broken stone. Broken stone shall be properly screened before use. All reinforced cement concrete work to be done in prop. 1:1.5:3 unless otherwise specified -18mm down to 12mm graded down broken stone as per related drawings and instructions of site Engineer to be followed in case of any discrepancies. Proper vibration to be done as per IS recommendation. Floor panelling to be done in the line of expansion joint as directed by Engineer-In-charge.

**Fine Aggregate -** Fine aggregate shall be hard, durable, clean and free from adherent coating and organic matter. It shall not contain harmful impurities such as pyrites, coal, lignite, mica, shale or similar laminated material, clay, alkali, soft fragments, sea shells and organic impurities in such quality as to affect the strength or durability of the concrete. Fine aggregate to be used for reinforced concrete shall not contain any material liable to attack the steel reinforcement. Fine aggregate which is chemically reactive with alkalis of cement is harmful as cracking of concrete may take place.

**Coarse Aggregate -** Coarse aggregate shall be obtained from natural sources such as stone, gravel, etc crushed or un-crushed or a continuation thereof from approved quarries. This shall consist of coarse material most of which is retained on 4.75mm sieve. Aggregate shall be hard, strong, dense, durable, clean and free from veins and adherent coatings. It shall be free from soft, feeble, thin, elongated or laminated pieces and shall be roughly cubical in shape. It shall be clear and free from dirt and any other deleterious matter.

**Reinforcement bars -** The following types of steel for reinforcement shall be used in reinforced concrete construction and these shall conform to Indian Standards or as revised from time to time mentioned against each

- i. Mild steel and medium tensile steel bars and hard drawn steel wire - IS: 432.
- ii. HYSD bars - IS: 1786.

**Bending & Placing steel reinforcement in position-**Bending shall be carried out as per relevant IS specification and direction of the Engineer-in-charge. All reinforcement bars shall be accurately placed in position with spacing and cover as shown in the drawing or as specified and firmly held so during the placing and vibrating and setting of concrete. Bars shall be thoroughly cleared of rust, seals, grease, oil and any other foreign matter before placing them in position. The overlap jointing shall be staggered. The bars shall be fixed with 22G binding wire. Precast cover blocks 1:2 (1 cement: 2sand) cement mortar 40 mm square and necessary thickness shall be used

to keep the reinforcement bars in proper position. For this block, no extra payment to be made. Wire required for binding shall not be measured separately. Tack welding shall also be permitted in lieu of building with steel wire.

Proportioning of mix - Proportioning shall be done by volume. Boxes of suitable size shall be used for measuring sand and aggregates. The size of the boxes (internal) shall be 35 x 25cm and 40cm deep. The unit of measurement for cement, shall be a bag of cement weighting 50 Kg and this shall be taken as 0.035 cubic metre. While measuring the aggregate and sand the boxes shall be filled without shaking, ramming or hammering. The proportioning of sand shall be on the basis of its dry volume and in case of damp sand, allowances for bulkage shall be made.

Mixing - Mixing of reinforced cement concrete shall, as a rule be done in a mechanical mixer. However, the Engineer-in-charge may permit hand mixing in specific cases where in his opinion it is not practicable to resort to mechanical mixing, either on account of the quality of cement concrete required is small or for any other reason. In such cases, it should be ensured that the inferior quality of concrete produced by hand mixing will not adversely affect the structure.

Consistency - The quantity of water to be used for each batch containing 50 Kg of cement, to give the required consistency shall not be more than 34 litres for 1:3:6, mix 32 litres for 1:2:4 mix, 30 litres for 1:1.5:3 mix and 27 litres for 1:1:2 mix. In case of vibrated concrete, the above quantity shall be suitably reduced. The quantity of water shall be regulated by carrying out regular Slump Test.

Placing of concrete - Before placing the concrete the sub-base/form work shall be cleared of all injurious or foreign matter, watered and well consolidated. Formwork shall be clean and free from all foreign material. It is necessary that the time between mixing and placing of concrete does not exceed the initial setting process. Mixed concrete that has been left standing shall not be used after the initial set has commenced the addition of water (or cement) to make such a mixture more workable shall not be allowed. In foundation trenches or such other situations, the entire concrete used in the work shall be laid gently (not thrown) in layers not exceeding 15cm. The concrete so deposited shall be thoroughly vibrated by means of mechanical vibrators till dense concrete is obtained.

Curing - Concrete shall be carefully protected during first stage of hardening from harmful effects or excessive heat, drying winds, rain or running water and shock. After the concrete has begun to harden i.e. about 1 to 2 hours after its laying it shall be protected from quick drying with moist gunny bags or any other material approved by the Engineer-in-charge. After 24 hours of laying of concrete the surface shall be cured by flooding water upto 25mm depth or by covering with wet adsorbent materials. The curing shall be done for a minimum period of 7 days from the date of pouring of concrete, unless otherwise specified.

Finishing - In case of roof slabs the top surface shall be finished even and smooth with wooden trowel, before the concrete beings to set. The surface of RCC slab on which the cement concrete or mosaic floor is to be laid shall be roughened with brushes while the concrete is green. This shall be done carefully without disturbing the concrete. Before laying the floor, the laitance shall be removed, the surface of slab hacked and a coat of cement slurry at 2.75 Kg of cement per square metre shall be applied, so as to get a good bond between RCC and concrete floor. The exposed surface which is to receive plaster or where it is to be joined with brick masonry wall, shall be properly roughened immediately after the removal of form work, taking care to remove the laitance completely without disturbing the concrete. Before the surface is plastered, it shall be cleaned and wetted so as to give good bond between concrete and plaster.

6.00 FORM WORK: The formwork shall be rigid and so corrected as to retain the shape and dimensions of the member being cast. Form work for concrete shall be seasoned timber or other approved materials as per directions of the Engineer. It shall be sufficiently tightened to prevent loss of cement slurry and all holes and joints shall be chaulked with putty. It shall have sufficient strength and rigidity to withstand the load of concrete, and vibrations, movement of men, materials and plants and any other incidental loads without excessive deflection beyond permissible limits. The formwork shall be so constructed as to be removable in sections by inscribing or otherwise loosening - them without hammering or levering with force. Only wedges, clamps bolts or screws etc shall be used in preference to nails or spikes. All side pieces shall be easily removable without disturbing the bottom pieces. Where however, use of nails and spikes become unavoidable, these shall be left projecting so that they can easily be withdrawn.

Surface treatment for shuttering - Forms shall be cleaned of all dust, wood shavings, dirt and other matter by washing with water. This process is facilitated by providing draining holes in the shuttering. The surface shall then be coated with soap solution applied before concreting is done. Soap solution for the purpose shall be prepared by dissolving yellow soap in water to get consistency of paint. Alternatively a coat of raw linseed oil/refined pale paraffin mineral oil or form oil of approved manufacture may be applied. In case steel shuttering is used, soap solution or row linseed oil shall be applied after thoroughly cleaning the surface. Care shall be taken that such approved composition is kept out of contact with the reinforcement.

In normal circumstances and where ordinary Portland cement is used form may generally be removed after the expiry of the following periods.

- a. Walls, columns and vertical face of all structural members as may be decided by the Site Engineer: 24 to 48 hours.
- b. Slabs side (props left under): 3 days
- c. Beam soffits (props. left under):14 days

- d. Removal of props under slabs
  - i) Spanning up to 4.5 m: 14 days
  - ii) Spanning over 4.5 m: 21 days
- e. Removal of props under beams:
  - i) Spanning up to 6 m: 21 days
  - ii) Spanning above 6 m: 28 days

In no circumstances shall forms be struck until the concrete reaches a strength of at least twice the stress to which concrete may be subjected at the time of removal of form work. All form works shall be removed without such shock or vibration as would damage the concrete. Form work for long span deep beams to be supported by MS props or Bhaluka Bamboo props as required based on the design for the formwork to take care the massive load of the green concrete.

#### 7.00 BRICKWORK:

- a. All bricks shall be of 75 class designation quality locally available as approved by the Site Engineer.
- b. Bricks shall be of size as specified in the item of work or of nominal size where no particular size is mentioned.
- c. Bricks shall be well burnt, sound, hard with sharp edges of uniform size and shape free from cracks, stones or particles of lime and other defects, shall be kiln burnt and satisfy the following requirement:
  - i. They shall give a clear metallic sound when struck
  - ii. They shall be of uniform colour and size
  - iii. They shall not be cracked, stratified or under or over burnt
  - iv. The tolerance in dimensions shall be +/- 12mm in length, 6mm in width and 3mm in height.
  - v. Keys or frogs shall be formed on one of the larger size, except in the case of machine extruded bricks where no frogs are required
  - vi. The increase in weight when soaked in water for 24 hours shall not be more than 20% of the dry weight of the bricks.
- d. If required by the Site Engineer, necessary test shall be conducted at the contractor's expense to ensure quality. In general, the bricks shall be the best quality locally available.

Bricks used for masonry in cement mortar or composite mortar shall be thoroughly soaked in clean water for at least an hour immediately before use (The absence of bubbling when the soaked brick is immersed in water is the test for thorough soaking). The soaked bricks shall be kept on a platform free from dirt, mud or any foreign element. Bricks shall be laid in English bond unless otherwise specified. Care must be taken that the bricks are perfectly clean and free from lime, moss or dirt of any kind. If necessary they must be scrubbed before use. Half or cut bricks shall be not used except for closures which may be required to complete the bond. It shall be ensured that all horizontal and vertical joints are completely filled with mortars

without any void in brickwork. Brickwork shall be raised truly plum (or true to required better whereso specified). All courses shall be laid truly horizontal. Vertical joints shall be truly vertical and those in alternate courses shall be in the same vertical line. The thickness of brick courses shall be uniform. Great care must be taken to masonry in progress of construction damp. When work is left off for the day troughs shall be formed, by means of fillets of mortar 51mm high all round the unfinished work and shall be kept filled with water. Vertical or inclined surfaces must be frequently watered from a rose headed can. Water should not be dashed with violence against new work as this washes out the mortar. Should the work be delayed owing to holidays or for other reason, the contractor must make adequate arrangements for keeping the work wetted, and shall continue to do so for at least ten days or such longer time as directed, after the brickwork has been completed.

#### 8.00 CEMENT MORTAR:

- i. Must be freshly mixed: Cement mortar will only be mixed in such quantities as can be used up on the work within half an hour of mixing. Mortar which has been mixed longer or which has taken its initial set will on no account be used on the work or remixed with fresh mortar. It must be immediately removed from the site or work.
- ii. Method of mixing: The cement and sand will be mixed dry in the specified proportions, by turning over at least three times on the mixing platform. Only sufficient water will then be added, thorough a rose of a watering can, to produce a workable mixture. The wet mortar will be thoroughly worked or mixed by repeatedly turning over, not less than three times on the mixing board.
- iii. Size of mixing platform and precaution against list : All mixing of mortar must be done on platforms of angle size and workman bringing the material to and from the platform must not be permitted to walk about on it, thereby bringing mud or dirt to the place, where the mortar is being mixed. The platform must be clean and level and all joints closed or filled so that the cement is not washed out.
- iv. Proportion of cement and sand: Where not otherwise specified, cement mortar for plaster will consist of one part of cement to two parts of sand. For mortar for brick or stone masonry work the proportion unless otherwise specified, will be one part of cement to three parts sand

9.00 WOOD WORK: The work shall be carried out as per detailed drawings and/or as directed by the Engineer-in-charge. The wooden members of the frame shall be planed smooth and accurate to the full dimensions. Rebates, rounding, moldings etc as shown in the drawing shall be done before the members are joined into frames. Timber will be 1st class seasoned as approved by the Engineer-in-charge.

Jointing - Jointing in timber frames must be made carefully and accurately. They shall be strong, neat and shall fit without wedging or filling. The joints shall be pinned with hard wood 10 to 15mm dia after the members of the frame are pressed together in a suitable vice-mechanism.

Surface treatment - Woodwork shall be painted, oiled, polished or otherwise treated as specified. All portions of timber abutting against masonry or concrete portion of building shall be coated with boiling coat tar or other type of approved wood preservative or primer, before placing them in final position.

Hold fasts - Hold fasts used for fixing doors and window frame shall be made of 40 x 3mm flat iron long. It shall have a hole on one end for fixing to frame with 10mm dia bolt, at the other end the flat iron shall be split and bent at right angles in the opposite direction. The hold fast shall be tightly fixed to the frame by means of bolts, the bolt hole in frame being plugged suitably and finished neat. The hold fast shall be embedded into masonry by concrete block as described in the item of work.

#### 10.00 DOORS:

- i. The flush door shutters (solid core type) decorative and non-decorative type shall conform to IS: 202 (Part I). The door should be fixed using 4 nos. of hinges 125mm long ensuring that the hinges are not fixed less than 150mm from the edges with 8 nos. parallel sunk fully threaded screws 38mm long, should be used for fixing the hinges to the flush door after drilling a pilot hole 2.50mm dia 40mm long. Screws should not be hammered. Lock, tower bolts etc. necessary, if any to be paid separately.
- ii. Door frame (Chowkhat) of doors, windows, other similar works wrought, framed and fixed in position in contact with C.C. or brick masonry walls including supplying, fitting and fixing with M.S. flat hold fast (40mm x 3mm x 250mm) as per design and embedded in cement concrete block in prop 1:2:4 and with two coats of kiricide oiling to the timber faces in contact with C.C. and masonry as directed and specified.

#### 11.00 STEEL WORKS:

Laying Out: A figure of the steel structure to be fabricated shall be drawn on a level platform to full scale. This may be done in full or in parts, as shown on drawings or as directed by the Engineer-in-Charge. Steel tape shall be used for measurements.

Fabrication: Fabrication shall generally be done as specified in IS 800. Great accuracy shall be observed in the fabrication of various members, so that these can be assembled without being unduly packed, strained or forced into position and when built up, shall be true and free from twist, kinks, buckles or open joints. The steel section shall be straight or to be straightened or flattened by pressure unless required to be of curvilinear form and shall free from twists. These shall be cut

square either by shearing or sawing to correct length and measured by steel tape. No tow pieces shall be welded or joined to make up for the required length of member.

During execution, the steel members shall be securely bolted or otherwise fastened when necessary temporarily braced to provide for all loads including those due to erection equipment's and its operation to be carried safely by structure during erection. The steel members shall be placed in proper position as per approved drawing, final riveting or permanent bolting shall be done only after proper alignment has been checked and confirmed.

Trusses shall be lifted only at nodes. The trusses above 10 m in span shall not be lifted by slinging at two mid points of rafters, which shall be temporary braced by a wooden member of a suitable section. After the trusses are placed in position, purlins and wind bracings shall be fixed as soon as possible.

**Welding:** Welding shall generally be done by electric arc process as per IS 816 and IS 823.

The electric arc method is usually adopted and is economical. Gas welding shall only be resorted to using oxyacetylene flame with specific approval of the Engineer-in-charge. Gas welding shall not be permitted for structural steel work. Gas welding required heating of the members to be welded along with the welding rod and is likely to create temperature stresses in the welded members. Precautions shall therefore be taken to avoid distortion of the members due to these temperature stresses.

As far as possible every effort shall be made to limit the welding that must be done after the structure is erected so as to avoid the improper welding that is likely to be done due to heights and difficult positions on scaffolding etc. apart from the aspect of economy. The maximum dia of electrodes for welding work shall be as per IS 814. Joint surfaces which are to be welded together shall be free from loose mill scale, rust, paint, grease or other foreign matter, which adversely affect the quality of weld and workmanship.

#### 12.00 P/F PRE PAINTED GALVALUME SHEET ROOFING:

Pre Painted Galvalume Sheet at all levels shall be fitted and fixed with self-drilling, self-tapping screws complete (roof trusses, purlins to be measured and paid separately) of make Dyna roof/TATA OR equivalent and of thickness 0.50mm thick. Preferably it shall be carried out by a reputed party.

#### 13.00 PLASTER WORK

i) Preparation of surface: All putlog holes in brick work and junction between concrete and brick work shall be properly filled in advance. Joints in brick work shall be raked about 10mm and concrete surface hacked to provide grip to the plaster. Projecting burrs of mortar formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coil brush to remove dirt, dust etc. and the surface thoroughly washed with clean water to remove



efflorescence, grease and oil etc. and shall be kept wet for a minimum of six hours before application of plaster.

ii) Proportion: The cement plaster shall be in specified proportion of cement and sand.

iii) Mixing: The cement and sand should be thoroughly mixed in dry condition. After dry mixing the materials shall be wetted with just sufficient water to bring the mortar to proper consistency of thick paste. Mortar should be used immediately after mixing and arrangements shall be made so that not more than 30 minutes elapse between the cement first coming in contact with the moisture and laying. In all exterior plaster works waterproofing compound to be added to the mortar as per the specification of the manufacturer, if not indicated in the item rate quoted should be inclusive of the same.

iv) Placing: Plaster shall be laid over the prepared surface in one coat to the specified thickness and rubbed with "PATAS" and trowel and shall be smooth, free from waviness and trowel marks.

v) Sequence of operations: For external plaster, the plastering operations shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supports of the ceiling resting on the wall or the floor have been removed.

vi) Curing: Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days.

Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used.

#### 14.00 WASHABLE DISTEMPER/OIL BOUND DISTEMPER/ EMULSION PAINTING:

Preparation of surfaces: The surface shall be thoroughly brushed free from dust, dirt, grease, mortar droppings and other foreign matter and sand papered smooth. Thereafter a smooth surface shall be prepared by applying putty, made of plaster of paris mixed with water on the entire surface including filling up the undulation and then sand papering the same after it is dry.

Primer coat: The primer where used as on undecorated surfaces shall be alkali resistance primer or acrylic based cement primer as specified in the item. These shall be of the same manufacture as oil bound distemper/ plastic emulsion paint. If the wall surface plaster has not dried completely alkali resistance primer shall be applied before distempering the walls. But if the distempering is done after the wall surface is dried completely, cement primer shall be applied.

Application of distemper/plastic paint coat: For undecorated surfaces, after the primer coat has dried for at least 48 hours, the surface shall be lightly sand papered to make it smooth for receiving the distemper/plastic paint taking care not to rub out the priming coat. All loose particles shall be dusted off after rubbing. Minimum two coats of distemper/plastic paint shall be applied with brushes in horizontal strokes followed immediately by vertical, which together shall constitute one coat. The subsequent coats shall be applied after a time interval of at least 24 hours between consecutive coats to permit of the proper drying of the preceding coat. For decorated surfaces, the distemper/plastic paint shall be applied in two coats or more over the prepared surface in the same manner as for undecorated surfaces.

Purchase of paint, varnish or oil: Only the best brands obtainable will be used and should the contract permit the contractor to supply any paint, oil or varnish he shall purchase only such brands as the Site Engineer shall approve of in writing. All purchases must be made direct from the manufacturers or through an agent approved of in writing by the Site Engineer. Should the Site Engineer so direct copies of all indents and receipts for purchase must be submitted for inspection. Paint, etc. to be purchased in sealed containers. All paints, oil or varnishes supplied by the contractor must be produced for the inspection of the Site Engineer of the work in the manufacturers sealed and unopened containers. All containers from which the contents have been removed and are not required on the work must be destroyed and no extra payment will be granted for such destruction. Only ready mixed or varnished of the make or brand specified will be permitted to be used exactly as received from the manufacturer without any admixture what so ever unless previously authorised, in writing, by the Site Engineer.

15.00 Exterior Painting: The paint shall be of approved brand and manufacture. This paint shall be brought to the site of work by the contractor in its original containers in sealed condition. For new work, 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.

Before pouring into smaller containers for use, the paint shall be stirred thoroughly in its container, when applying also the paint shall be continuously stirred in the smaller containers so that its consistency is kept uniform. Dilution ratio of paint with potable water can be altered taking into consideration the nature of surface climate and as per recommended dilution given by manufacturer. In all cases, the manufacturer's instructions & directions of the Engineer-in-charge shall be followed meticulously.

The lids of paint drums shall be kept tightly closed when not in use as by exposure to atmosphere the paint may thicken and also be kept safe from dust.

Paint shall be applied with a brush on the cleaned 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.

#### 16.00 SYNTHETIC ENAMEL PAINT:

Preparation of surface: The surfaces before painting shall be cleaned of all rust, scale, dirt and other foreign matter sticking to it with wire brushes, steel wool in case of steel surfaces and sand papering in case of wooden surfaces. Thereafter, one coat approved primer paint will be applied on the surface. Synthetic enamel paint (Superior quality as approved) shall be applied - two or more coats to give an even shade.

#### 17.00 TILE FLOORING:

Tiles: The tiles shall be of approved make and shall generally conform to IS 15622. They shall be flat, and true to shape and free from blisters crazing, chips, welts, crawling or other imperfections detracting from their appearance.

The top surface of the tiles shall be glazed. Glaze shall be either glossy or matt as specified. The underside of the tiles shall not have glaze on more than 5% of the area in order that the tile may adhere properly to the base. The edges of the tiles shall be preferably free from glaze. However, any glaze if unavoidable, shall be permissible on only upto 50 per cent of the surface area of the edges.

Preparation of Surface and Laying: Base concrete or the RCC slab on which the tiles are to be laid shall be cleaned, wetted and mopped. The bedding for the tile shall be with cement mortar 1:4 (1 cement : 4 coarse sand) or as specified. The average thickness of the bedding shall be 20 mm or as specified while the thickness under any portion of the tiles shall not be less than 10 mm. Mortar shall be spread, tamped and corrected to proper levels and allowed to harden sufficiently to offer a fairly rigid cushion for the tiles to be set and to enable the mason to place wooden plank across and squat on it. Over this mortar bedding neat grey cement slurry of honey like consistency shall be spread at the rate of 3.3 kg of cement per square metre over an area upto one square metre. Tiles shall be soaked in water washed clean and shall be fixed in this grout one after another, each tile gently being tapped with a wooden mallet till it is properly bedded and in level with the adjoining tiles. The joints shall be kept as thin as possible and in straight lines or to suit the required pattern. The surface of the flooring during laying shall be frequently checked with a straight edge about 2 m long, so as to obtain a true surface with the required slope. In bath, toilet W.C. kitchen and balcony/verandah flooring, suitable tile drop or as shown in drawing will be given in addition to required slope to avoid spread of water. Further tile drop will also be provided near floor trap. Where full size tiles cannot be fixed these shall be cut (sawn) to the required size, and their edge rubbed smooth to ensure straight and true joints. Tiles which are fixed in the floor adjoining the wall

shall enter not less than 10 mm under the plaster, skirting or dado. After tiles have been laid surplus cement slurry shall be cleaned off.

**Pointing and Finishing:** The joints shall be cleaned off the grey cement slurry with wire/coir brush or trowel to a depth of 2 mm to 3 mm and all dust and loose mortar removed. Joints shall then be flush pointed with white cement added with pigment if required to match the colour of tiles. Where spacer lug tiles are provided, the half the depth of joint shall be filled with polysulphide or as specified on top with under filling with cement grout without the lugs remaining exposed. The floor shall then be kept wet for 7 days. After curing, the surface shall be washed and finished clean. The finished floor shall not sound hollow when tapped with a wooden mallet.

#### 18.00 SANITARY, PLUMBING WORKS AND WATER SUPPLY FITTINGS & FIXTURES:

All sanitary, plumbing and water supply fittings and fixtures shall conform to the specifications and particular make specified in the items of work and direction of Engineer-in-charge. All waste and soil pipes and fixtures shall conform to IS specifications and shall be jointed as specified.

- i. WC as per drawing & specification.
- ii. Wash basin and urinal pan at toilet as per drawing & specification.
- iii. Providing soap tray in the toilet.
- iv. Rain water pipe as per drawing & specification
- v. Gully trap
- vi. Inspection chambers, manholes, drainage pipes etc. as per drawings.

**19.00 WATER SUPPLY:** For internal work the galvanised iron pipes and fittings shall run on the surface of the walls or ceiling (not in chase) unless otherwise specified. The fixing shall be done by means of standard pattern holder bat clamps, keeping the pipes about 1.5 cm clear of the wall. When it is found necessary to conceal the pipes, chasing may be adopted or pipes fixed in the ducts or recess etc., provided there is sufficient space to work on the pipes with the usual tools. The pipes shall not ordinarily be buried in walls or solid floors. Where unavoidable, pipes may be buried for short distances provided adequate protection is given against damage and where so required joints are not buried. Where directed by the Engineer-in-Charge, a M.S. tube sleeve shall be fixed at a place the pipe is passing through a wall or floor for reception of the pipe and to allow freedom for expansion and contraction and other movements. In case the pipe is embedded in walls or floors it should be painted with anticorrosive bitumastic paints of approved quality. The pipe shall not come in contact with lime mortar or lime concrete as the pipe is affected by time. Under the floors the pipes shall be laid in layer of sand filling as done under concrete floors. All pipes and fittings shall be fixed truly vertical and horizontal unless unavoidable. The pipes shall be fixed to walls with standard pattern holder bat clamps of required shape and size so as to fit tightly on the pipes when tightened with screwed bolts, these clamps shall be embedded in brick work in cement mortar 1:3 (1 cement: 3 coarse sand).

The clamps shall be fixed at shorter lengths near the fittings as directed by the Engineer-in-Charge.

For G.I. pipes 15 mm diameter, the holes in the walls and floors shall be made by drilling with chisel or jumper and not by dismantling the brick work or concrete. However, for bigger dimension pipes the holes shall be carefully made of the smallest size as directed by the Engineer-in-Charge. After fixing the pipes the holes shall be made good with cement mortar 1:3 (1 cement: 3 coarse sand) and properly finished to match the adjacent surface.

Unions will be provided to facilitate connections additions and alterations as well as for maintenance and for change of pipes.

#### 20.00 ANODISED ALUMINIUM WORKS:

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.

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. 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.

Glazing: Glass used for glazing shall be sheet glass of best approved quality, free from flaws, specks, bubbles and shall be of specified thickness.

EPDM- GASKETS: 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.

SEALANT: The sealants of approved grade and colour shall only be used. The silicone for perimeter joints (between Aluminum section and RCC/Stone masonry) shall be of make approved by the Engineer in Charge.

21.00 TEST REPORTS & CERTIFICATES: The various mandatory tests shall be carried out by the contractor and no separate payment shall be made unless

otherwise specified in the schedule of rates. Test reports/certificate to be produced by the contractor at his own cost.

- i. Test report of water for construction and curing should be produced ('PH' value should not be less than 6).
- ii. Test report for quarry materials, M.S. rod, Tor steel should be produced.
- iii. Cube test for RCC to be done as per relevant IS code of practice and as directed by Engineer-in-Charge.
- iv. Any other test reports/certificates to be produced as per the direction of Engineer-in-charge.

22.00 MEASUREMENT & PAYMENT: Payment for all works done shall be made on the basis of actual work done as per the schedule of rates. For all extra work done on the advise of the Company's Engineer and which is not included in the schedule of rates, deviation order for the same shall be made on the rates as decided by the Company's Engineer.

23.00 SAFETY MEASURE: Safety measure as per OIL regulations shall be strictly adhered to by the Contractor. Safety belts and other measure taken by the Contractors shall be borne by the Contractor. If any loss or damage caused to life during the erection and execution, the contractor shall be fully responsible for the loss.

24.00 RECORD KEEPING:

- i. A site order book will be maintained at site which will be in the custody of the Engineer-in-charge or his representative and all instructions given to the Contractor will be recorded in the site order book and the same has to be signed by the contractor to comply with the instruction given therein.
- ii. A register to be maintained at site which will be in the custody of the Engineer-in-charge or his representative to maintain the records of cement the same has to be signed by the contractor.
- iii. A separate register to be maintained at site by the contractor to record the works executed and a remarks columns to be added in this to record the hindrance.

25.00 In case of any ambiguity/conflict among various documents the decision of Engineer-in-charge will be final and binding.

**B. ANNEXURE=B Scope of Electrical Works:****GENERAL:**

1.1 Special conditions if contract shall be read in conjunction with the General Conditions of Contract, Schedule of Quantities specifications of work, 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 sections and volumes, every part of each shall be deemed to be supplementary 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 is repugnant to or at variance with any provisions of the Special conditions of Contract, then unless different intention appears, the provisions of the Special Conditions of Contract shall be deemed to override the provision(s) of General Conditions of Contract only to the extent that such repugnance or variance cannot be reconciled with the tender conditions of contract and shall be to the extent of such repugnance of variations, prevail; it being understood that the provisions of General Conditions of Contract shall otherwise prevail.

1.4 Wherever it is stated anywhere in this tender document that such and such a supply is to be effected or such and such a work is to be carried out, it shall be understood that the same shall be effected/carried out by the contractor at his own cost, unless a different intention is specifically and expressly stated herein or otherwise explicit from the context.

1.5 The materials, design and workmanship shall satisfy the relevant Indian Standards, the job specifications contained herein & codes referred to. Where the job specifications stipulate requirements in addition to those contained in the standard codes and specifications, these additional requirements shall also be satisfied. In the absence of any Standard/Specifications/Codes of practice for detailed specifications covering any part of the work covered in this tender, the instructions/directions of Company will be binding on the Contractor.

1.6 The items given under Bill of Quantity shall be read in conjunction with scope of work, scope of supply (by Contractor) and job specifications and in case of any irreconcilable conflict between them the provision in the item under "Bill of Quantity" will override the corresponding provision only if the scope of work, scope of supply and job specifications, which cannot be reconciled in such cases the decision of Company shall be final and binding on the contractor.

1.7 In case of contradiction between Indian Standards, General Conditions of Contract, Special Conditions of contract, Specifications Drawings, Bill of Quantity, the following shall prevail in order of precedence.

- i. Letter of intent / Detailed Letter of intent along with statement of Agreed Variations and its enclosures.
- ii. Bill of Quantity.
- iii. Special Conditions of Contract.
- iv. Job specifications/
- v. Drawings
- vi. General Condition of contract
- vii. Indian Standard/Technical/Material Specifications.

## 2.0 LOCATION OF SITE AND SITE PARTICULARS:

### 2.1 Location of work Chemical office, Duliajan.

2.2 The intending Bidder shall be deemed to have visited the site and familiarized himself thoroughly with the site conditions and job details before submitting the tender. Non familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with the drawings and specifications.

## 3.0 STATUTORY REQUIREMENT FOR WORK:

3.1 The contractor should have valid Electrical Contractor License issued or recognized by State Licensing Board, Govt. of Assam. In case license expires during contract period the same shall be renewed by the contractor. The contract shall be terminated if the license is not renewed if required.

3.2 Contractor shall employ work persons with valid wireman permit issued by State Licensing Board, Govt. of Assam to carry out all electrical jobs and shall deploy one supervisor holding valid Electrical supervisor's competency certificate issued/recognized by State Licensing Board, Govt. of Assam for supervision of electrical jobs.

3.3 Quality of jobs carried out by the Contractor shall be of high standard and should be as per the norms of BIS, NEC, CEA Regulations and other electrical standards recognized by the company.

4.0 POWER: Electricity required for wiring purpose shall be arranged by the contractor. However, electricity may be provided by the Company at its discretion to use drill machine or any other portable tools required for wiring purposes if available at nearest point. The Contractor shall have to arrange for required switch board with proper safety device like RCBO/ELCB/RCCB to draw power and use safely from the existing source.

5.0 SCOPE OF SUPPLY: Company does not envisage supplying any material for this work & contractor has to arrange all materials of his own & the rates quoted shall be deemed to include the same.



**6.0 SCOPE OF WORK:** Brief details of work to be carried out by the contractor are as described below. This will include supply, storage, laying, installation, jointing and testing, obtaining approvals, testing and commissioning and completion of different works. The contractor shall have to take prior approval from OIL for all items before purchasing. Without approval of items, contractor will not allowed to work. The work shall be carried out as described in Bill of Quantities (BOQ), specifications, and drawings, BIS / NEC guidelines and as per the instructions by Engineer-in-charge (electrical), of the Company. The scope of work shall cover internal electrification works of any office building/Industrial house/ Residential area and as specified by concerned Engineer in charge. The broad items/activities covered under internal electrical works shall include the Supply, Carry out & Installation of the following

i) Point wiring of all lights points, call bell points, Ceiling fan points, exhaust fan points.

ii) Light plug points, general power points, metal clad plug & socket outlet points etc. including light and power accessories etc. complete in all respects.

iii) All concealed wiring shall be through BIS marked Medium/heavy duty PVC conduit on or through wall, roof, floor beams, false ceiling, floors etc.

iv) Cables from Main Distribution Board to Sub Distribution Board, sub main wiring from main/sub distribution boards to various final distribution boards.

v) Main Distribution Boards, Sub-Main Distribution Boards and Sub Distribution Boards.

vii) Light fixtures, and exhaust fans.

viii) Earthing of all Main CFS, Main DBs and SUB DBs etc. complete in all respects.

## 8.0 SCHEDULE OF QUANTITIES/RATE:

8.1 The quantities shown against the various items are only approximate and may vary to any extent individually subject to relevant clause of General Conditions of Contract. Any increase or decrease in the quantities shall not form the basis for alteration of rates quoted and accepted including where low/high rates have been quoted by the successful bidder.

8.2 The Engineer in charge reserves the rights to interpolate or extrapolate the rate for any new item of work not finding a place in the Bill of Quantity, for similar items of lower and or higher magnitude available in the Bill of Quantity.

8.3 In case any activity though specifically not covered in Bill of Quantity description but covered under scope of work/spec./drawing etc., contractor has to carry out the same without any extra claim.

**9.0 PRICE VARIATION:** OIL requires "FIRM PRICES" as indicated in General Conditions or Contract during Contract period and no material or labour escalation shall admissible on any account whatsoever.

10.0 MEASUREMENTS, BILLING & TERMS OF PAYMENT: All works shall be measured in metric system based on actual work done as per the terms and conditions of the Tender documents. Running Accounts bills based on Bill of Quantity shall be prepared and submitted based on joint measurements.

11.0 DEDUCTIONS FOR INCORRECT WORK: If, the Engineer-in-charge(Electrical) deems it expedient to correct work damaged or not done in accordance with the contract, an equitable deduction from the contract price shall be made thereof and the decision of the engineer shall be final.

12.0 CONTRACT DRAWINGS: Contractor has to prepare all working drawings mentioned below and obtain approval from the engineer in charge (Electrical) before starting the Civil work starts so that piping works for wiring job does not suffer due to non-approval of the working drawings:

a) Layout diagram of complete conduit job for concealed wiring showing route for wiring from DB to sub-DB, sub-DB to Switch Board, Light and ceiling positions etc.

b) Schematic diagram for complete electrical work.

c) The contract shall keep at least one copy each of drawings, conditions of contract, specifications, instructions and schedule of quantities at the site of works available for reference by any authorized representative Engineer-in-charge(Electrical), at all times during the progress of the works.

d) Contractor has to submit the LT Panel diagram (General Arrangement drawing, Schematic diagram and Bill of material) and take prior approval from Concern Engineer in charge before start manufacturing.

#### C. TECHNICAL SPECIFICATIONS:

##### CHAPTER -1

##### TECHNICAL REQUIREMENTS & MEASUREMENT SYSTEM

1.0 SCOPE: This chapter covers the general technical requirements and measurement system of the various components in Internal Electrical Installation works.

##### 1.0 TERMINOLOGY

1.1.1 The definition of terms shall be in accordance with 18:732-1989 (Indian Standard Code of Practice for Electrical Wiring), except for the definitions of point, circuit, and sub-main wiring, which are defined in clauses 2.2.1, 2.3.1, and 2.3.2 hereunder.

## 1.2 POINT WIRING

### 1.2.1 Definition

Point wiring: A point (other than socket outlet point) shall include all work necessary to complete wiring to the following outlets from the controlling switch or MCB.

1.2.2 Scope: Includes supply & fixing of all specified items like Conduit Casing - capping, accessories like screws, rawl plug, Outlet boxes, junction boxes, pull-through boxes-etc, including metal boxes if any, provided with switch boards for loose wires/conduit terminations, Bushed conduit or porcelain tubing where wiring cables pass through wall etc.

### 1.2.3 Measurement:

1.2.3.1 Point Wiring: There shall be no linear measurement for point wiring for light points, fan points, exhaust fan points and call bell points.

These shall be measured by counting only.

1.2.3.2 Wiring for socket outlet points: Light plug point 6 A, Power point 6/16A, 20A metallic socket wiring shall be measured as total length of wiring and shall be measured on linear basis along the run of wiring depending on the actual number and sizes of wires run .

The power point outlet may be 16A /6 A six pin socket outlet, where so specified in the tender documents.

## 1.3 CIRCUIT AND SUBMAIN WIRING:

1.3.1 Circuit wiring: Circuit wiring shall mean the wiring from the distribution board up to the tapping point for the nearest first point of that distribution circuit, viz. upto the nearest first switch box.

1.3.2 Sub-main wiring: Sub-main wiring shall mean the wiring item one main/distribution switchboard to another.

1.3.3 Measurement of sub-main wiring: The sub main wiring shall be measured on linear basis and paid for separately.

1.4 OTHER WIRING WORKS: Except as specified above for point wiring, circuit wiring and sub-main wiring, other types of wiring 'shall be measured separately on linear basis along the run of wiring depending on the actual number and sizes of wires run.

## 1.5 SYSTEM OF DISTRIBUTION AND WIRING:

1.5.1. Control at the point of entry of supply: There shall be a circuit breaker on each live conductor of the supply mains at the point of entry.

1.5.2 Distribution: The wiring shall be done on a distribution system through main and/or branch distribution boards. The system design as well as the locations of boards shall be as indicated in BOQ/drawings or as specified by the OIL Engineer-in-charge. Main distribution board shall be controlled by a circuit breaker. Each outgoing circuit shall also be controlled by a circuit breaker. The branch distribution board shall be controlled by a circuit breaker. Each outgoing circuit shall be provided

with a miniature circuit breaker (MCB) of specified rating on the phase or live conductor. The loads of the circuits shall be divided, as far as possible, evenly between the numbers of ways of the distribution boards, leaving at least one spare circuit for future extension.

The neutral conductors (incoming and outgoing) shall be connected to a common link (multilayer connector) in the distribution board and be capable of being disconnected individually for testing purposes.

'Power' wiring shall be kept separate and distinct from 'Lighting' wiring, from the level of circuits i.e., beyond the branch distribution boards.

1.5.3. Balancing of Circuits: The balancing of circuits in three wire or poly phase installations shall be arranged beforehand to the satisfaction of the OIL Engineer-in-charge.

1.5.4 Wiring System: Wiring shall be done only as per "point wiring" or "running metre" standard, as explained above.

Lights, fans and call bells shall be wired in the 'lighting' circuits.

6/16A combined socket outlets and other power outlets shall be wired in the 'Power' circuits. 5A/6A Socket outlet shall be wired in the light plug point circuit.

The wiring throughout the system shall be such that there is no break in the neutral wire except in the form of linked MCCB's, MCB's, RCBO's etc.

1.5.5 Run of Wiring: The wiring shall be in concealed conduit only. Due consideration shall be given for neatness, good appearance and safety.

1.6 Joints in wiring: No bare conductor in phase and / or neutral or twisted joints in phase, neutral, and / or protective conductors in wiring shall be permitted. There shall be no joints in the through-runs of cables. If the length of final circuit or sub main is more than the length of a standard coil, thus necessitating a through joint, such joints shall be made by means of approved mechanical connectors in suitable junction boxes.

1.7 RATINGS OF OUTLETS: Exhaust fan, LED light, shall be rated according to their capacity.

1.8 CAPACITY OF CIRCUITS: 'Lighting' circuit shall not have more than a total of 10 points of light, fan and socket outlets, or a total connected load of 800W, whichever is less. 'Power' circuit shall have only one outlet per circuit.

1.9 CONFORMITY TO CEA REGULATIONS, 2010 AND STANDARDS:

All electrical works shall be carried out in accordance with the provisions of CEA Regulations, 2010, BIS AND National Electric code, National Building Code. List of Rules of particular importance to building installations is given in Appendix for reference. The works shall also conform to relevant Indian Standards In all electrical installation works, relevant safety codes of practice shall be followed.

#### 1.10 GENERAL REQUIREMENTS OF COMPONENTS:

1.10.1 Quality of materials: All materials shall be of such design, size and material as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

1.10.2 Ratings of components: All components in a wiring installation, conductors, switches and accessories shall be of appropriate ratings of voltage, current, and frequency, as indicated in BOQ.

1.10.3 Conformity to Standards: All components shall conform to relevant Indian Standard Specification, as per broad list specifying makes of components given in Appendix 'A' including amendments or revisions thereof up to the date of tender acceptance, shall be applicable in the respective contracts.

#### 1.10.5 General Notes:

- a) Items shall be procured from the manufacturer or their authorized dealers only.
- b) All the items shall be brand new and shall bear BIS monogram, wherever specified.
- c) Item shall be guaranteed for a period of one year from the date of installation of materials against any manufacturing defect or workmanship.

#### 1.11 CABLES:

##### 1.11.1 Wiring cables:

Conductors of wiring cables shall be of copper. The smallest size of conductor for various circuits including earthing shall be not less than as follows:

'lighting' 1.5 sq mm. 'power' 4 sq mm, Sub Main 6 sq mm, Main 10 or 16 sq.mm , All wiring cables shall be Copper , FRLS, single core, PVC insulated, unsheathed, 1100V grade, BIS marked & FIA & TAC approved, with flexible conductor.

#### 1.12 PVC Casing and Capping

1.12.1 Fixing casing-capping: PVC casing and capping shall be BIS marked. PVC casing and capping should be strong and properly fitted so as to hold wires laid in it 70% to its full capacity for all areas. It should be rigidly screwed at 150mm interval crosswise with suitable woodscrews of 25mm length turned in PVC sleeve inserted in neatly drilled holes of proper size and depth with cup washer to give proper grip over more surface area. Providing and fixing of PVC casing and capping include bends, elbows, tees, inside and outside corners, round blocks and painting. It can be run whether in horizontal or vertical position as required. The inspection shall be done from time to time as the work progresses. Capping shall not be put on until the work has been inspected after the wires are laid in position and approved by the Engineer-in-charge.

1.12.2 Providing earth continuity wires: The earth continuity wire shall be provided in the casing throughout the length of wiring. The size of earth continuity wire shall be same size with the main wire for circuits. All metallic parts, switchboards, light fittings and power sockets shall be connected to the earth wires and the connection shall be electrically and mechanically sound.

#### 1.13 PVC Conduits:

1.13.1 All rigid conduit pipes shall be of medium duty PVC conduit of standard quality and be BIS marked.

1.13.2 The conduit wiring system shall be complete in all respects, including their accessories. Where a large number of control switches and/or fan regulators are required to be installed at one place, these shall be installed in more than one outlet box adjacent to each other for ease of maintenance.

1.13.3 Bunching of cables in conduit: Cables shall always be bunched so that the outgoing and return cables are drawn into the same conduit. Where the distribution is for three phase loads only, conductors for all the three phases and neutral wire shall be drawn in one conduit.

#### 1.14 WIRING ACCESSORIES:

1.14.1 Control switches for points: Control switches (single pole switches) carrying not more than 16A shall be modular type complete with plate, as specified, and the switch shall be #ON# when the knob is down. Control switch shall be placed only in the live conductor of the circuit. No single pole switch or fuse shall be inserted in the protective (earth) conductor, or earthed neutral conductor of the circuit.

1.14.2 Socket outlets: 6/16 pin Socket outlets shall be of shutter type modular complete with plate. These shall be rated either for 6A, or 16A. Combined 6 pin 6A/16A pin socket outlet shall be provided in 'power' circuits wherever specified. 6A Socket outlets shall only be of 5 pin type; the third pin shall be connected to earth through protective (loop earthing) conductor. The control switches for 6A and 16A socket outlets shall be kept along with the socket outlets. Generally socket outlet shall be installed at a height of above 30 cm but below 130 cm from the floor level. The layout of wiring shall be as approved by Engineer in Charge.

1.14.3 Switch box covers: These shall be modular type of suitable size.

#### 1.15 FITTINGS:

1.15.1 Indoor type fittings specification: Mirror optic suspension/recessed type LED luminaire with all accessories and LED drivers, ready for installation as per the following description.

- 1) Optical system should provide all round glare and beam control.
- 2) Luminaire shall be supplied with:

- a) For 2 x2 LED luminaire, minimum output Lumen shall be 3200 and colour temperature shall be in between 5500-6500K. Driver shall be external and efficacy shall be 90%. Power factor >0.9, THD < 10%, IEC Compliant for safety.
- b) For LED Batten 4ft long Luminaire, minimum output Lumen shall be 1700 Lumen and efficacy shall be more than 85%. Power factor >0.9, THD < 10%.
- c) For LED Batten 2ft long Luminaire, minimum output Lumen shall be 1300 Lumen and efficacy shall be more than 85%. Power factor >0.9, THD < 10%.
- d) For LED downlight, minimum lumen out shall be 1200 Lumen, CRI >80%, driver shall be constant current non integrated, Optics High Efficiency diffuser with more than 85% Transmittance.

2) Luminaires shall be supplied with all standard accessories (including chains etc. if required) for suspension mounting.

Power supply: 230/240v, 50 Hz, single phase

Make: Philips/Bajaj/Crompton Greaves/GE/Havells/Osram/HPL

The type of fittings shall be as specified in BOQ.

#### 1.16 PRE-WIRED MCB DISTRIBUTION BOARDS:

Pre wired MCB DB's shall be provided only where specified.

The complete board shall be factory fabricated and shall be duly pre wired in the works, ready for installation at site. The board shall be of wall mounted, cubicle type construction, fabricated out of 1.6mm thick sheet steel, with stove enameled paint finish. The board shall also be provided with a loose wire box as a compartment for the complete width and, depth of the board, and of minimum height of 125mm in case of TPN DB's, and 100mm in case of SPN DB's. The board shall be provided with a hinged cover of 1.6mm thick sheet steel in the front. Only the knobs of the MCB's shall protrude out of the front covers through openings neatly machine made for the purpose. Knock out holes at the bottom, and detachable plate with knock out holes at the top of the board shall be provided. Each distribution board shall be provided with a circuit list giving details of each circuit which it controls and the current rating of the circuit, and the size of the MCB. The board shall be complete with the following accessories:

- a) 100 A copper bus bar(s) for MCB DBs.
- b) 250 A copper busbar for MCCB DB
- c) Neutral link.
- d) Common earth bar.
- e) DIN bar for mounting MCB's
- f) Screw type terminal connectors suitable for incoming and outgoing cables.
- g) Earthing stud(s)

The board shall be fully prewired with single core PVC insulated copper conductors/insulated solid copper links, and terminated on to extended type terminal connectors, suitable for connections to the sizes of the respective conductors. All incoming and outgoing wiring to the pre wired MCB DB's shall be terminated only in extended terminal connectors to be provided within the DB. The

terminal connectors shall, therefore, be so provided as to facilitate easy cable connections and subsequent maintenance. Elmex connectors are to be provided. A common copper earth bar shall be provided within the loose wire box. The common neutral bar as well as the terminal connectors shall, however, be provided within the main compartment just below the loose wire box.

#### 1.17 MINIATURE CIRCUIT BREAKERS (MCB's):

'C' series MCB's shall be invariably used for all loads. Ratings (A), number of poles, type as MCB or isolator, etc. shall be as specified in the BOQ. The MCB's shall be of minimum 10KA rupturing capacity.

#### 1.17 SWITCH BOARD LOCATIONS:

##### 1.17.1 General aspects:

Switch boards shall be located as indicated on the drawings or as instructed by OIL's engineer. However exact location will be as per suitable available spaces.

1.18:A switch board shall be installed so that its bottom is 1.30 m from the floor level. Where it is required to terminate a number of casing capping or conduits on a board, it may be convenient to provide a suitable PVC adopter box for the purpose. Such boxes shall be provided with the prior approval of the Engineer-in-charge (Electrical) and this will not be paid for separately. No apparatus shall project beyond any edge of the panel.

#### 1.21 FANS, REGULATORS AND CLAMPS:

##### 1.21.2 Fan Regulators:

Electronic modular type fan regulator shall be from approved vendor. The regulators are to be procured from authorized dealer to ensure genuineness of the material. Fan regulator shall be fixed in the switch board as per the ceiling fan circuit shown in the drawing.

#### 1.22 WORKMANSHIP:

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound Engineering practice. The work shall be carried out under the direct supervision of a person holding a valid supervisor's certificate of competency issued by the State Govt. for the type of work involved, employed by the contractor, who shall rectify then and there the defects pointed out by the Engineer-in-charge (Electrical) during the progress of work.

#### 1.23 COMMISSIONING ON COMPLETION:

After the entire wiring is completed, a joint inspection shall be carried out. The contractor shall rectify the defects pointed out by OIL during inspection. The works shall be tested by the contractor and contractor shall submit the test certificates duly



signed by the competent persons. The system shall be energised only after OIL approves the work done and submission of test certificate.

#### 1.24. COMPLETION DOCUMENTS:

The contractor shall submit 4 copies of as built layout drawings to the Owner after completion of the work. These complete drawings shall give the following information:

- a) Operation & Maintenance Manuals for all equipment's.
- b) Manufacturers test report & data sheets for equipment's if any.
- c) Layout of lighting & power wiring, UPS wiring Etc.
- d) Location of DB's, Sub-mains, cables & earthing.
- e) Junction boxes.
- f) Cable schedule, DB Charts
- g) Single line diagram, Schematic diagram for overall electrical distribution duly laminated
- h) GA & schematic MV Panel Distribution Boards UPS etc.

#### 1.25: Panel specification:

##### 1. Scope of work:

This specification covers Design, fabrication, supply, installation, testing and commissioning of 01 nos., 415 V AC, 50HZ indoor type panel with MCCBs as incomer and MCCBs as outgoing feeders, skid mounted ready for operation on being installed in a fixed position. The Panels shall be placed on a suitable RCC foundation to take the load of Panel.

##### 2. Standards:

All components used in the manufacture of the Panels shall confirm to the relevant IEC/BIS standard specification and especially to the followings:

- i. IS:13947-1993/IEC:60947 General arrangement for switchgear and control gear for voltage not exceeding 1000 V
- ii. IS: 12063-1987/IEC:60529 Degrees of Protection provided by enclosures of electrical Equipments
- iii. IS: 5/2004 Colour for ready mixed paints and enamel
- iv. IS: 732/1989 Code of Practice for Electrical Wiring Installations
- v. IS: 5039/1983 Distribution pillars for voltage not exceeding 1000 V
- vi. IS/IEC: 127-1994 Miniature Fuses- Fuse Holders for Miniature Cartridge Fuse Links - Specification
- vii. IS:2551-1982 Danger Notice Plates
- viii. IEC:60664 Insulation co-ordination within low voltage system including clearance creepage distances for equipment

##### 3. Technical Requirements:

##### 3.1. Details of components: Type of Panel: Indoor Type

**A. Incoming Feeder & Instrument:****I. 400A, MCCB: 2 Nos**

The thermal MCCB with shall have following specification

- a) Rating: 4 pole, 400 A, minimum 36 kA, 50Hz, 415VAC
- b) Settings:
  - i. OverCurrent:  $I_r=0.8$  to  $1 \times I_n$
  - ii. Short Circuit:  $I_m= 5$  to  $10 \times I_r$ ;
  - iii. Instantaneous protection against short Circuit with fixed threshold  $I_f=5kA$
  - iv. Digital Multifunction Meter, V+A+Hz+KW+PF+KWh+Max.Demand with RS-485 port : 1 No
  - v. Ring type Current Transformer, 400/5, 15VA, Class 1 to IS: 2705, Cast resin type: 3 Nos
  - vi. MCCBs shall be actuated by a handle that clearly indicates the three position ON/ OFF/ TRIP.
  - vii. 3 Nos LED for R, Y, B phases shall be provided showing availability of power : 3 Nos
  - viii. Moulded HRC Fuse Holders with HRC Fuses for control circuit protection : 3 Nos

**B. Outgoing Feeders:****I. 250A, MCCB - 2 nos**

The Thermal MCCB shall have following specification

- a) Rating: 4 pole, 250 A, minimum 25kA, 50Hz, 415VAC
- b) Settings:
  - a. OverCurrent:  $I_r=0.8$  to  $1 \times I_n$ ;
  - b. Short Circuit:  $I_m= 5$  to  $10 \times I_r$ ;
  - c. Instantaneous protection against short Circuit with fixed threshold  $I_f=5kA$
- c) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set

**II. 160 A,MCCB :6Nos**

TheThermal based MCCB shall have following setting

- a) 4 pole, 160 A, minimum 25kA, 50Hz, 415VAC
- b) Settings:
  - i) Over-Current:  $I_r= 0.8$  to  $1 \times I_n$ ;
  - ii) Short Circuit:  $I_m= 5$  to  $10 \times I_r$ ;
  - iii) Instantaneous protection against short circuit with fixed threshold  $I_f=5kA$
- c) Digital Ammeter, 3 Phase with inbuilt selector switch with size 96×96 mm. : 1 Set

**C. Bus-bar:**

The bus chamber shall be sheet steel clad having front and rear bolted covers and shall consist of 1 set TP & N electrolytic grade, high conductivity Aluminum bus-bars, conforming to BIS. Current rating of bus bar sections 800 A suitable for 415 V AC, 50

Hz system. Neutral bar shall be of same size as phase bus. The bus-bar shall be insulated with heat shrinkable PVC sleeves, make Raychem RPG, equivalent reputed make and shall be supported at required intervals with non- hygroscopic, non-deteriorating, and non-inflammable SMC / FRP supports-Devi Polymer/Power mate/ Sintex /Electro fibre make having adequate mechanical strength and a high tracking resistance, to withstand short circuit fault levels up to 50 kA for 1 sec.

All risers and connections from bus bar shall be carried out with same material as the main bus bars of current rating as per rating of individual cubicle switch. To suit the stringent site conditions, the bus bar system shall be designed with generous clearance between phases than specified in the standards. Adequate non-hygroscopic insulating sheet barriers between the bus chambers and feeders shall be provided. The manufacturers prototype panel must have type test certificate from CPRI/equivalent testing lab of national reputed for short circuit withstand of 50kA for one second on minimum 2000Amps Bus Bars, Temperature rise test. A copy of the test certificate shall be enclosed with the offer.

All necessary interconnection shall be duly tested as per IS: 8623

#### D. Make & Specification:

The Make and Model No. of the components shall be as follows:

- a. Digital Multifunction Meter: Make: Schneider Power logic PM200 series/ HPL- Socomec (Diris A41)/ Siemens PAC3200/Secure
- b. Digital Ammeter with inbuilt selector switch: Make: Schneider electric/ HPL/ LT/ Siemens
- c. Current Transformer: Make: Kappa/ Precise Electrical/ Pragati Electrical/ Siemens/ L&T/ Schneider electric
- d. LED : Make: Binay/ Tecnic/ L&T/ Siemens
- e. HRC Fuses: Make: GE/ Siemens/ L&T/ Schneider/ Cooper Bussman
- f. MCCB Make:
  - i. Schneider Electric
  - ii. ABB
  - iii. Siemens India Ltd
  - iv. Legrand
  - vi) Indo Asian: Optium range MCCB
  - vii) L&T
- g. Digital Earth leakage relay with CBCT Make:
  - i. Legrand:
  - ii. Schneider Electric (Merlin Gerin): Vigirex Earth Leakage Relay: RH 99
  - iii. GE: Type, RD6
  - iv. Prokdv's: Digital earth leakage relay: Model No. MP-EL-02

#### 4. Constructional Details:

##### 4.1. General Requirements:

- i. Panel shall be self-supporting, Indoor Type, dust, vermin/rodent proof, suitable for placing on a RCC foundation. Any left holes/cable entries shall be blocked by using detachable metallic sheets to prevent entry of rodent/reptiles.
- ii. The structure of Panel shall be made with 2mm thick CRCA sheet and (75x40x6) mm base channel as required.
- iii. Heavy duty Lifting hooks (4 No's heavy duty lifting hooks) shall be provided for lifting of Panel.
- iv. The door shall be in parts and shall have locking arrangement with special type Knob type key. Danger Plate fitted on both sides.
- v. For cooling of the component louver arrangement shall be made in the Panel
- vi. Panel shall have a heavy duty base framework. The frame design shall be such that the height between bottom cable entry plate and the connection hole of brought out link of incoming, outgoing MCCBs shall be minimum 450mm.
- vii. The entire sheet-work shall be given minimum ten tank anti-rust treatment as per IS and then powder coated (min 50 micron thick) in light grey shade no 631 as per IS:631.
- viii. The design should be as per IS-8623, 13947, 13703, 4237 and IEC-61439 and suitable for ambient-40°C (Max)/ 5°C (Min), humidity-95% (Max). All components used must be suitable for the environment as mentioned.
- ix. All hardwares should be of high tensile steel & Zinc passivated. Size of spring washers & flat washers should be as per relevant IS for individual bolt.
- x. All the components shall be mounted on separate steel plate with necessary stiffeners or suitable channels so that all the components can be checked and replaced from front side after opening the door.
- xi. All items will be labelled using riveted engraved metallic or mica labels.
- xii. All incoming and outgoing cables shall enter the enclosure from bottom side. Bottom plate shall have individual detachable gland plates for all cables. These detachable plates shall be accessible and removable from inside. All cable entry plates shall have knockouts.

#### 4.2 General Technical Requirements:

- i. All connection links between bus-bar and MCCBs & brought out links shall be made with rectangular sections of Aluminium conforming to IS 5082. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the device rating. Spreader bars supplied by MCCB manufacturer shall be used for all incoming and outgoing terminations for all MCCBs.
- ii. All control wiring shall be done with single core 2.5sqmm, FRLS PVC insulated, 1100v grade, IS approved stranded copper cable.
- iii. All control cable ends shall have crimped copper lugs for proper termination and ferrules for identification of wiring. All the control circuit wiring shall be connected with terminals blocks, ferrules for easy identification
- iv. All panel doors shall be earthed.
- v. No bimetallic joints shall be permitted in the links of connections.

- vi. Special non-deteriorating Neoprene rubber gaskets shall be provided at panel doors.
- vii. Sufficient space should be provided for proper glanding, dressing, connecting up and maintenance of all cables. Sufficient nos. of cable entry holes shall be provided in the bottom plate.
- viii. All items shall be duly fixed with zinc passivated high tension hard-wares. DIN channel shall be used for components having facility to mount on DIN channel.
- ix. All items of the Panel must be approved by ISI or IEC (with latest amendments) for performance and safety. 3 nos fuse carrier and base of 16 Amp of SM type with 4 Amp HRC fuses and fuse link shall be provided for power supply of multifunction meter. The auxiliary power supply of multifunction meter shall be 230 VAC.
- x. Current transformer shall be cast resin type, with accuracy class 0.5 and suitable specification. 2 Nos passivated heavy duty type nuts and bolts shall be provided for connection of earthing on two opposite side.
- xi. For all incoming and outgoing cable connection, brought out terminals shall be provided. Suitable size of single compression M.S cable gland of size mentioned in the point no. (xii) for all incoming and outgoing cables along with Panel. Suitable size of holes shall be made into detachable gland plate for incoming and outgoing feeders. The cable gland is to be supplied and fitted in the Panel by bidder as per requirement of incoming and outgoing feeders.
- xii. The Panel shall have provision for,
  - a) Incoming cable entries: suitable for terminating 2nos 3.5×240 sqmm XLPE cable
  - b) Outgoing cable entries:
    - i) for 400 A MCCB: Entry hole matching with 3.5×240 sqmm PVCA/XLPE cable for each 400 A compartment
    - ii) for 160 A MCCB: Entry hole matching with 3.5×95sqmm PVCA cable for each 160 A compartment
    - iii) for 100 A MCCB :Entry hole for 4 x 50mmsq cable for each 100 A compartment
- xiii. Higher version of components with same feature as mentioned in make list of components having proven track records of components may be acceptable to OIL. All cable entries shall be done from bottom side. Separate detachable type gland plates shall be provided for all cables. One additional cable entry gland plate shall be provided

#### 1. Name Plate and Marking:

5.1. Panel shall be provided with Aluminum /Stainless steel / Brass nameplate showing the following information indelibly marked in English:

- ¢ Manufacturer's Name
- ¢ OIL's Purchase Order No. & date
- ¢ Manufacturer's Serial Number
- ¢ Year of Manufacture
- ¢ Rated Voltage Rating

- ¢ No. of circuits (incoming & outgoing)
- ¢ Rated Current of incoming circuit
- ¢ Rated Current of outgoing circuit
- ¢ Degree of protection

#### 5.2. Danger Notice Plates:

Danger Notice plate shall be provided at the front of the Panel using M5 hot dipped galvanized /stainless steel / brass fasteners (oval head rounded neck bolts with nuts and external tooth lock washers) not removable / accessible from the front i.e. without opening the door / front cover.

5.3. A laminated printed drawing of complete circuits shall be pasted on the outside and inside of door of each Panel mentioning OIL#s order no, WBS no (Provided by OIL at the time of drawing approval).

#### 6. Tests:

The following routine tests shall be carried out in accordance with the relevant IS/IEC standards:

##### A. Routine Tests:

The following routine tests shall be carried out at manufacturers' works during inspection:

- i) Overall Dimensions Checking.
- ii) Insulation Resistance Tests.
- iii) High Voltage Test at 2500 V, 50 Hz AC for one minute.
- iv) Functional Test and verification of continuity of protective circuits
- v) Verification of clearances & creepage distances

B. AcceptanceTest: Temperature rise test on any one Panel shall be carried out in addition to routine test on one random sample out of the lot offered for inspection and type test certificate shall be produced during inspection.

#### 7. Test Certificates:

Copy of type test conducted on similar type panel by NABL accredited laboratories for the following shall be submitted with the offer.

- a) Short time current withstand test
- b) Temperature rise test
- c) Degree of protection

#### 8. Inspection

The Panel shall be inspected by Oil's Engineer at manufacturer's works prior to dispatch. Routine test on the individual components and on Panel in accordance with IS shall be carried out at the manufactures works which shall be witnessed by OIL Engineer. The supplier will have to give 30 days advance intimation to enable depute OIL representative for witnessing the acceptance and routine test. Inspection visit will be at OIL's account.

## 9. Drawing & Documents:

### 9.1. Drawings/Documents to be submitted along with the offer:

The following drawings & documents shall be prepared based on NIT's specifications and statutory requirements with complete BOM and shall be submitted with the bid:

- i. Completely filled-in technical parameters
- ii. SLD of Panel
- iii. Bill of Material (BOM)
- iv. GA drawing of the Panel showing dimensional details
- iv. Type Test certificates for tests conducted earlier on similar equipment shall be furnished

## 10. Documents/drawings to be submitted for approval after the award of the order:

The following drawings & documents shall be submitted for approval:

GA drawing, SLD, termination details, wiring diagram and complete bill of material of the Panel shall be submitted to OIL for approval within 45 days after placement of the order.

## 11. Documents/drawings to be submitted along with the supply

Four sets of the following documents shall be submitted with the supply

- i. Approved GA drawing showing all details, including constructional detail and component layout for panels
- ii. Approved SLD & Schematic Diagram
- iii. Technical specification of all equipment including Manual/Catalogue/installation instructions etc
- iv. Bill Of Materials with technical details
- v. Routine, Acceptance & Type test certificates.
- vi. Guarantee Certificate
- vii. List of recommended spares with pricing and part no. for two years operation

Note: the drawing shall be approved by OIL within 30 Days of submission of drawing. Delay in drawing approval due to error correction in drawings submitted will to be parties account.

## 12. Warranty:

The goods/equipments shall be of best quality and workmanship. Panel and all its components shall be guaranteed for twelve (12) months from the date of commissioning against defects arising due to material, workmanship or design. The party shall agree to replace/repair the defective components at their cost during guarantee period.

\*\*\*\*\*

## APPENDIX-A

## APPROVED MAKE OF MATERIALS

i) SINGLE CORE BIS MARKED COPPER FRLS INSULATED STRANDED FLEXIBLE 1100 V GRADE CABLE AS PER IS 694.

FINOLEX/HAVELLS/L&T/POLYCAB/RR KABEL/OR ANY BIS APPROVED MAKE

ii) COPPER LUGS

DOWELL/3D-BILLET/JAINEX/SCHNEIDER(MERLIN GERIN)

iii) BIS MARKED PVC CASING CAPPING

PRESTO PLAST/AKG/PLAZA/RICHA/Equivalent

iv) METAL CLAD SWITCH SOCKET UNIT- 20/25 Amps.

LEGRAND/SCHNEIDER (MERLIN GERIN)/SIEMENS/HAVELLS/INDO-ASIAN

v) CEILING FAN, 1400 mm Sweep, White in Color.

HAVELLS (Pacer)/BAJAJ (Kassels)/ORIENT (PSPO)/USHA /Crompton Greaves

vi) LIGHT FITTINGS SIMILAR TO PHILIPS/Crompton Greaves/Bajaj/Surya/Syska/HPL/Bajaj MAKE:

a) Similar to Philips make RC380B G2 LED35S-6500 PSU OD WH

b) Similar to Philips make BN150W LED20S-6500 PSE OD GR

c) Similar to Philips BN150W LED13S-6500 PSE OD GR

d) Similar to Philips- DN 393B LED12S-6500PSR WH

vii) MCCB with electronic/microprocessor/Thermal release.

LEGRAND/SCHNEIDER/SIEMENS/ABB/INDO-ASIAN/HAVELLS/L&T

viii) MCB'S & MCB DBs (10KA, C- curve, IP54).

LEGRAND/SCHNEIDER/SIEMENS/ABB/INDO-ASIAN/HAVELLS/L&T

ix) Modular switches/Socket/Box -Make& Model.

LEGRAND(Myrus)/SCHNEIDER(Vivace)/CRABTREE(Murano)/Indo Asian(Elvira)

x) Modular Fan regulator 100W.

LEGRAND(Myrus)/SCHNEIDER(Vivace)CRABTREE(Murano)/Indo Asian(Elvira)

OTHER ITEMS:

AS APPROVED BY THE ENGINEER-IN-CHARGE OR AS PER BOQ AND SPECS.

D. **“The bidders should note that, if three (3) or more bidders are found to be technically eligible, no clarification / deficit documents will be sought from the bidders under any circumstances, once the bids are opened and the bids will be evaluated on the basis of documents submitted by the bidders along with the bid”.**

E. The bidder shall also furnish following information / documents alongwith the bid. Company reserves the right to reject the bid in the event of non submission of such information / documents.

- Wherever applicable, the bidder shall have itself registered under Employees' Provident Fund and Miscellaneous Provisions Act, 1952 and follow the relevant statutory provisions including Rules made there-under concerning contractual workers to be engaged by such bidder. The bidder shall furnish the Provident Fund code number issued by the appropriate Govt. Authority, with supporting



documents, or a declaration / undertaking in stamped paper in the **Format Annexure-I.**

F. The bidder shall furnish following information / documents on issuance of LOI within 15 (fifteen) days from the date of issuance. Company reserves the right to cancel the contract / LOI if these documents are not submitted within the stipulated period, besides taking action under **Clause H. (III) of Part-III SCC** of tender document.

- a. PAN, VAT Registration number (Not required for OIL registered contractors).
- b. Service Tax Registration number issued by the appropriate Govt. Authority or exemption certificate from the concerned authority or a declaration / undertaking in stamped paper in the prescribed Format to the extent that provisions of the Service Tax are not applicable to him / her / them and in the event of any claim from the Service Tax Authority upon Company at a later date with respect to the services provided under the contract, the bidder shall deposit such amount to the Company, as per the rules applicable from time to time.

G. The bidder must provide the following minimum numbers of equipments in operational condition capable of providing uninterrupted services under the contract as and when required.

**LIST OF MATERIALS & EQUIPMENTS TO BE SUPPLIED BY CONTRACTOR:**

- Concrete mixer machine: ----- 01 No.
- Welding and cutting set : ----- 02 Nos
- Tiles / concrete cutter : ----- 02 Nos
- Vibrator :----- 01 No.

H. (I) The following check list to be enclosed (uploaded) by the bidder along with the bid document:-

**CHECK LIST:**

SL NO	DESCRIPTION	
1	Location /construction site visited & assessed.	YES
2	Item descriptions clearly understood and availability of materials verified.	YES
3	Understood that Mandatory Material tests to be performed (wherever applicable)	YES
4	PF code No. / Annexure-I as <b>per clause no. E. of Part-III SCC</b> have been submitted by me /us	YES
5	Bid validity from the date of technical bid opening is 120 days	YES
6	I / We shall provide the following minimum numbers of equipments in operational condition capable of providing uninterrupted services under the contract as and when required, failing which company shall have the	YES

	<p>right to terminate the contract, besides taking action <b>as per Clause H. (III)</b> hereunder.</p> <p><b><u>List of equipment's:</u></b></p> <ul style="list-style-type: none"> <li>• Concrete mixer machine: ----- 01 No.</li> <li>• Welding and cutting set : -----02 Nos</li> <li>• Tiles / concrete cutter : ----- 02 Nos</li> <li>• Vibrator :----- 01 No.</li> </ul>	
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Bidder(s) should clearly understand these criteria before submission of the bid and in case of any doubt he / she / they may seek clarification from Engineer – in charge / DGM-Civil Engineering department, before submitting the bid.

(II) Information / List of other Civil works contract, if any, being executed by the bidder(s) in his / her / their firm's name in OIL and expected to continue beyond 6 months time from date of opening of bid document to be furnished to DGM-Civil by all bidders before issuance of work order.

(III) Company reserves the right to debar the bidder / contractor during processing of tender and / or during continuation of the contract on commission or omission on the part of the bidder / contractor as under:

- a) Has indulged in malpractices, bribery, fraud, pilferage.
- b) Is bankrupt or is being dissolved or resolved to be wound up or proceedings for winding up or dissolution have been instituted.
- c) Has furnished false information / statement / declaration and / or forged document / certificate.
- d) Has substituted materials in lieu of materials supplied by OIL or has not returned or has short returned or has unauthorizedly disposed-off materials / documents / drawings / tools or plants or equipments supplied by OIL.
- e) Has obtained official Company information or copies of documents in relation to the tender / contract by dubious methods / means.
- f) Has deliberately violated and circumvented the provisions of labour laws / regulations / rules, safety norms or other statutory requirements.
- g) Has indulged in construction and erection of defective works or supply of defective materials/services and not made good of the defects within reasonable time in spite of follow-up by Company.
- h) Has not cleared OIL's previous dues.
- i) Has committed Breach of Contract or has failed to perform a contract or has abandoned the contract.
- j) Has refused to accept LOA / LOI / Purchase Order / Signing of the Contract after accepting LOA / Work Order after the same is issued by OIL within the period of Bid validity and as per agreed terms & conditions.

- k) After bid opening, withdraws / revises its bid within the period of bid validity for no valid reasons. However, reduction of quoted rate(s) / Bid price by L1 Bidder after the bid opening date shall not constitute ground for banning.
  - l) Has parted with, leaked or provided confidential / proprietary information of OIL given to the party only for its use (in discharging its obligations against an order / contract) to any third party without prior consent of OIL.
  - m) Use intimidation / threatening or brings undue outside pressure on the Company or its Official(s) for acceptance of its bid or acceptance of materials supplied or performance of the job under the contract / purchase order.
  - n) If the Director / Owner / Proprietor / Partner of a party is convicted by a court of law for offences involving moral turpitude in relation to its business dealings during last five years.
  - o) Poor performance of the supplier / contractor /service provider in one or several contracts / supplies affecting Company's operations.
  - p) Any other ground for which, in the opinion of the Company makes it undesirable to deal with the party.
- I. Defect liability period shall be 6 months beyond the date of completion of works as certified by Engineer-In-Charge. During defect liability period all corrective works shall be performed entirely at Contractor's own expenses. If such corrective works is not performed within a reasonable time, the Company, at its option, may have such remedial work carried out by others and charge the cost thereof to Contractor shall be deducted from contractor's bill or Retention money/ performance security.

**Part- IV SCPME**  
OIL INDIA LIMITED  
(A Govt. of India Enterprise)  
Contracts, Duliajan  
**WORKS CONTRACT**  
Schedule of company's Plants, Materials and Equipments  
**E-Tender No.CDI3097P17**

- a) SCHEDULE OF MATERIALS AVAILABLE AT THE COMPANY'S STORES/STOCK PILES for permanent incorporation in works and
- b) SCHEDULE OF COMPANY'S PLANTS AND EQUIPMENTS for use in the execution of work.
- a. **Materials:** Cement will be issued from Company's godown at Duliajan or other godowns.

NB: All empty cement bags must be returned to Materials Godown Duliajan failing which Rs 8/- (Rupees Eight only) per bag for empty cement bags will be recovered from the Contractor's bill.

**b. Plants & equipment's :** Nil

**NOTE:-**

1. The Contractor is to arrange transport of the above materials to site of work and for safety thereof for which no extra payment will be made.
2. If the materials listed above are not available suitable substitute will be provided by the Company and Contractor shall incorporate the same in the works without extra cost.
3. Containers must be returned to Company in good condition.
4. Plants and equipment if issued to Contractor must be under proper watch so that no part is pilfered. These must be handled only by Company's operators. Contractor shall be responsible for any loss or damage to these plants and equipment while these are under his/their custody.
5. Materials issued to Contractor must be under proper watch & ward so that no part is pilfered. If any pilferation takes place the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the materials issued.
6. Cement issued to Contractor by the Company is meant only for the specific Company work relating to the Contract. However, if any quantity of Cement is left over from the quantities issued for any reason whatsoever, on the completion / cancellation / termination of the Contract the same shall have to be returned to the Company in full within one week of completion/cancellation of the work failing which the matter will be referred to appropriate Govt. authorities for legal action as well as realization of the Cement.
7. All other materials issue to the Contractor by the Company if subsequently found to be in excess of the actual requirement will have to be returned by the Contractor within two weeks of completion of the work failing which the cost of all such materials will be recovered from the Contractor at double the value of materials without any reference to him.

**PART-V SAFETY MEASURES**

**To,  
DGM-CONTRACT  
OIL INDIA LIMITED  
DULIAJAN-786602**

**SUB: SAFETY MEASURES**

**DESCRIPTION OF WORK/SERVICE:** - Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.

Sir,

We hereby confirm that we have fully understood the safety measures to be adopted during execution of the above contract and that the same have been explained to us by the concerned authorities. We also give the following assurances.

- a) Only experienced and competent persons shall be engaged by us for carrying out work under the said contract.
- b) The names of the authorized persons who would be supervising the jobs on day to day basis from our end are the following:
  - i) \_\_\_\_\_
  - ii) \_\_\_\_\_
  - iii) \_\_\_\_\_

The above personnel are fully familiar with the nature of jobs assigned and safety precautions required.

- c) Due notice would be given for any change of personnel under item(b) above.
- d) We hereby accept the responsibility for the safety of all the personnel engaged by us and for the safety of the Company's personnel and property involved during the course of our working under this contract. We would ensure that all the provisions under the Oil Mines Regulations, 1984 and other safety rules related to execution of our work would be strictly followed by our personnel. Any violation pointed out by the Company's Engineers would be rectified forthwith or the work suspended till such time the rectification is completed by us and all expenditure towards this would be on our account.
- e) We confirm that all persons engaged by us would be provided with the necessary Safety Gears at our cost.
- f) All losses caused due to inadequate safety measures or lack of supervision on our part would be fully compensated by us and the Company will not be responsible for any lapses on our part in this regard.

g) We shall abide by the following HSE (Health Safety & Environment) points:

**GENERAL HEALTH, SAFETY & ENVIRONMENT (HSE) POINTS:**

1. It will be solely the Contractor's responsibility to fulfill all the legal formalities with respect to the Health, Safety and Environmental aspects of the entire job (namely; the person employed by him, the equipment, the environment, etc.) under the jurisdiction of the district of that state where it is operating. . Ensure that all sub-contractors hired by him comply with the same requirement as the contractor himself and shall be liable for ensuring compliance all HSE laws by the sub or sub-sub contractors.

2. Every person deployed by the contractor in a mine must wear safety gadgets to be provided by the contractor. The Contractor shall provide proper Personnel Protective Equipment as per the hazard identified and risk assessed for the job and conforming to statutory requirement and company PPE schedule. Safety appliances like protective footwear, Safety Helmet and Full Body harness has to be DGMS approved. Necessary supportive document shall have to be submitted as proof. If the Contractor fails to provide the safety items as mentioned above to the working personnel, the Contractor may apply to the Company (OIL) for providing the same. OIL will provide the safety items, if available. But in turn, OIL will recover the actual cost of the items by deducting from Contractor's Bill. . However, it will be the Contractor's sole responsibility to ensure that the persons engaged by him in the mines use the proper PPE while at work. All the safety gears mentioned above are to be provided to the working personnel before commencement of the work.

3. The Contractor shall prepare written Safe Operating Procedure (SOP) for the work to be carried out, including an assessment of risk, wherever possible and safe methods to deal with it/them. The SOP should clearly state the risk arising to men, machineries & material from the mining operation / operations to be done by the contractor and how it is to be managed.

4. The contractor shall provide a copy of the SOP to the person designated by the mine owner who shall be supervising the contractor's work.

5. Keep an up to date SOP and provide a copy of changes to a person designated by the Mine Owner /Agent /Manager.

6. Contractor has to ensure that all work is carried out in accordance with the Statute and SOP and for the purpose he may deploy adequate qualified and competent personnel for the purpose of carrying out the job in a Contractor 1 Company SCC safe manner. For work of a specified scope/nature, he should develop and provide to the mine owner a site specific code of practice in line.

7. All persons deployed by the contractor for working in a mine must undergo Mines Vocational Training, initial medical examination, PME. They should be issued cards

**Tender No: CDI3097P17**

stating the name of the contractor and the work and its validity period, indicating status of MVT, IME & PME.

8. The contractor shall submit to DGMS returns indicating - Name of his firm, Registration number, Name and address of person heading the firm, Nature of work, type of deployment of work persons, Number of work persons deployed, how many work persons hold VT Certificate, how many work persons undergone IME and type of medical coverage given to the work persons.

9. The return shall be submitted quarterly (by 10th of April, July, October & January) for contracts of more than one year. However, for contracts of less than one year, returns shall be submitted monthly.

10. It will be entirely the responsibility of the Contractor/his Supervisor/representative to ensure strict adherence to all HSE measures and statutory rules during operation in OIL's installations and safety of workers engaged by him. The crew members will not refuse to follow any instruction given by company's Installation Manager / Safety Officer / Engineer / Official / Supervisor/Junior Engineer for safe operation.

11. Any compensation arising out of the job carried out by the Contractor whether related to pollution, Safety or Health will be paid by the contractor only.

12. Any compensation arising due to accident of the Contractor's personnel while carrying out the job, will be payable by the contractor.

13. The contractor shall have to report all incidents including near miss to Installation Manager / departmental representative of the concerned department of OIL.

14. The contractor has to keep a register of the persons employed by him/her. The contractor's supervisor shall take and maintain attendance of his men every day for the work, punctually.

15. If the company arranges any safety class / training for the working personnel at site (company employee, contractor worker, etc) the contractor will not have any objection to any such training.

16. The health check up of contractor's personnel is to be done by the contractor in authorized Health Centers as per OIL's requirement & proof of such test(s) is to be submitted to OIL. The frequency of periodic medical examinations should be every five years for the employees below 45 years of age and every three years for employees of 45 years of age and above.

17. To arrange daily tool box meeting and regular site safety meetings and maintain records.

18. Records of daily attendance, accident report etc. are to be maintained in Form B, E, J (as per Mines Rules 1955) by the contractor.

19. A contractor employee must, while at work, take reasonable care for the health and safety of people who are at the employee's place of work and who may be affected by the employee's act or omissions at work.

20. A contractor employee must, while at work, cooperate with his or her employer or other persons so far as is necessary to enable compliance with any requirement under the act or the regulations that is imposed in the interest of health, safety and welfare of the employee or any other person.

21. Contractor's arrangements for health and safety management shall be consistent with those for the mine owner.

22. In case Contractor is found non-compliant of HSE laws as required company will have the right for directing the contractor to take action to comply with the requirements, and for further non-compliance, the contractor will be penalized prevailing relevant Acts/Rules/Regulations.

23. When there is a significant risk to health, environment or safety of a person or place arising because of a non-compliance of HSE Measures Company will have the right to direct the contractor to cease work until the non-compliance is corrected.

24. The contractor should prevent the frequent change of his contractual employees as far as practicable.

25. The contractor should frame a mutually agreed bridging document between OIL & the contractor with roles and responsibilities clearly defined.

26. For any HSE matters not specified in the contract document, the contractor will abide the relevant and prevailing Acts/rules/regulations/ pertaining to Health, Safety and Environment.

(Seal)

Yours Faithfully

Date\_\_\_\_\_

M/s\_\_\_\_\_

FOR & ON BEHALF OF CONTRACTOR



**INTEGRITY PACT**

Between  
**Oil India Limited (OIL)** hereinafter referred to as "The Principal"  
And  
(Name of the bidder ).....hereinafter referred to as  
"The Bidder/Contractor"

**Preamble:**

The Principal intends to award, under laid down organizational procedures, contract/s for **Construction of Second Floor O.T. Complex of OIL hospital, RCC staircase including internal electrification, installation & commissioning of AC and supply of all materials except cement in Duliajan.** The Principal values full compliance with all relevant laws and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder/s and Contractor/s.

In order to achieve these goals, the Principal cooperates with the renowned international Non-Governmental Organisation "Transparency International" (TI). Following TI's national and international experience, the Principal will appoint an external independent Monitor who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

**Section 1 - Commitments of the Principal**

(1) The Principal commits itself to take all measures necessary to prevent Corruption and to observe the following principles:-

- I. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for him/herself or third person, any material or immaterial benefit which he/she is not legally entitled to.
- II. The Principal will, during the tender process treat all Bidders with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidders the same information and will not provide to any Bidder confidential/additional information through which the Bidder could obtain an advantage in relation to the tender process or the contract execution.
- III. The Principal will exclude from the process all known prejudiced persons.

- (2) If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

**Section 2 - Commitments of the Bidder/Contractor**

- (1) The Bidder/Contractor commits itself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.

- I. The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or immaterial benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
- ii. The Bidder/Contractor will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelisation in the bidding process.
- iii. The Bidder/Contractor will not commit any offence under the relevant anticorruption Laws of India; further the Bidder/Contractor will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- iv. The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

**Section 3 - Disqualification from tender process and exclusion from future Contracts**

If the Bidder, before contract award has committed a transgression through a violation of Section 2 or in any other form such as to put his reliability or risibility as Bidder into question, the Principal is entitled to disqualify the Bidder from the tender process or to terminate the contract, if already signed, for such reason.

1. If the Bidder/Contractor has committed a transgression through a violation of Section 2 such as to put his reliability or credibility into question, the Principal is entitled also to exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressions within the company hierarchy of the Bidder and the amount of the damage. The exclusion will be imposed for a minimum of 6 months and maximum of 3 years.
2. The Bidder accepts and undertakes to respect and uphold the Principal's Absolute right to resort to and impose such exclusion and further accepts and undertakes not to challenge or question such exclusion on any ground, including the lack of any hearing before the decision to resort to such exclusion is taken. This undertaking is given freely and after obtaining independent legal advice.
3. If the Bidder/Contractor can prove that he has restored/recouped the Damage caused by him and has installed a suitable corruption prevention system, the Principal may revoke the exclusion prematurely.
4. A transgression is considered to have occurred if in light of available evidence no reasonable doubt is possible.

**Section 4 - Compensation for Damages**

1. If the Principal has disqualified the Bidder from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover from the Bidder liquidated damages equivalent to 3 % of the value of the offer or the amount equivalent to Earnest Money Deposit/Bid Security, whichever is higher.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to section 3, the Principal shall be entitled to demand and recover

from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/Performance Bank Guarantee, whichever is higher.

3. The bidder agrees and undertakes to pay the said amounts without protest or demur subject only to condition that if the Bidder/Contractor can prove and establish that the exclusion of the Bidder from the tender process or the termination of the contract after the contract award has caused no damage or less damage than the amount or the liquidated damages, the Bidder/Contractor shall compensate the Principal only to the extent of the damage in the amount proved.

**Section 5 - Previous transgression**

1. The Bidder declares that no previous transgression occurred in the last 3 years with any other Company in any country conforming to the TI approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

**Section 6 - Equal treatment of all  
Bidders/Contractor/Subcontractors**

1. The Bidder/Contractor undertakes to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all Bidders, Contractors and Subcontractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

**Section 7 - Criminal charges against violating Bidders/Contractors/  
Subcontractors**

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor, which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

**Section 8 - External Independent Monitor/Monitors  
(three in number depending on the size of the contract)  
(to be decided by the Chairperson of the Principal)**

1. The Principal appoints competent and credible external independent Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Chairperson of the Board of the Principal.
3. The Contractor accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder/Contractor/Subcontractor with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or heal the violation, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the Chairperson of the Board of the Principal within 8 to 10 weeks from the date of reference or intimation to him by the 'Principal' and, should the occasion arise, submit proposals for correcting problematic situations.
7. If the Monitor has reported to the Chairperson of the Board a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Chairperson has not,

within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.

8. The word 'Monitor' would include both singular and plural.

**Section 9 - Pact Duration**

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the respective contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/determined by Chairperson of the Principal.

**Section 10 - Other provisions**

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
3. If the Contractor is a partnership or a consortium, this agreement must be, signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

-----  
For the Principal

-----  
for the Bidder/Contractor

Place: Duliajan.

Witness 1: .....

Date:

Witness 2: .....

Contractor

Company

**BID EVALUATION CRITERIA (BEC)/BID REJECTION CRITERIA (BRC)**

**(A). BID EVALUATION CRITERIA (BEC):**

1.0 The bid shall conform generally to the specifications and terms and conditions given in the Tender Documents. Bids will be rejected in case services offered do not conform to the required parameters stipulated in the technical specifications. Notwithstanding the general conformity of the bid to the stipulated specifications, the following mandatory requirements will have to be particularly met by the Bidders without which the same will be considered as non-responsive and rejected. All the documents related to BEC must be submitted along with the Techno-Commercial Bid.

**2.1** Interested bidders shall have to submit the following documents to qualify for opening of the Price Bid:

**2.1.1**

- a. One successfully completed similar work of value ₹ 55,24,000.00 under tender with CPWD, Railways, APWD, MES, NRL, ONGCL, OIL or any other Government Organization / Public Sector Undertaking during the last seven (07) years reckoned from the original bid closing date.
- b. For proof of requisite experience of SIMILAR work, Job Completion Certificate clearly mentioning Gross value of job done, Nature of works, Contracts period/Contract Start and Completion date issued by CPWD, Railways, APWD, MES, NRL, ONGCL, OIL or any other Government Organization / Public Sector Undertaking must be submitted along with the bid.
- c. SIMILAR work executed by a bidder for its own organization / subsidiary will not be considered as experience for the purpose of meeting BEC.

**2.1.1.1** The bidder must possess a valid electrical contractor's license issued/endorsed by Electrical Licensing Board of Govt. of Assam or else have tie up with an Electrical Firm / contractor holding valid electrical contractor's license issued/endorsed by Electrical Licensing Board of Govt. of Assam. The bidder or their collaborators must have experience in internal electrification works in Office/ Residential Building during the last 7(seven) years reckoned from the original bid closing date in any organizations as listed in Civil Experience. In case of collaboration with any Electrical firm as mentioned above, the bidder must furnish an MoU entered into with the collaborator towards providing the requisite service as per the terms of the contract.

### 2.1.2

- a) Annual Financial Turnover of the bidder during **any of preceding three financial / accounting years from the original bid closing date** should be at least ₹33,14,000.00.
- b) **Net worth** of bidder must be positive for preceding financial/ accounting year.
- c) Considering the time required for preparation of Financial Statements, if the last date of preceding financial/accounting year falls within the preceding six months reckoned from the original bid closing date and the Financial Statements of the preceding financial / accounting year are not available with the bidder, then the financial turnover of the previous three financial/ accounting years excluding the preceding financial / accounting year will be considered. In such cases, the Net worth of the previous financial / accounting year excluding the preceding financial / accounting year will be considered. However, the bidder has to submit an affidavit / undertaking certifying that 'the balance sheet / Financial Statements for the financial year .....(as the case may be) has actually not been audited so far.

**Note:** For proof of Annual Turnover & Net worth any one of the following document must be submitted along with the bid:-

- i) A certificate issued by a practicing Chartered/ Cost Accountant (with Membership Number and Firm Registration Number), certifying the Annual turnover & Net worth as per format prescribed in **Annexure-II**.

**OR**

- ii) Audited Balance Sheet along with Profit & Loss account.

Note: In case the bidder is Central Govt. organization/ PSU/ State Govt. organization/ Semi-State Govt. Organization or any other Central/ State Govt. Undertaking, where the auditor is appointed only after the approval of Comptroller and Auditor General of India and the Central Government, their certificates may be accepted even though FRN is not available. However, bidder to provide documentary evidence for the same.

**2.1.3** Bids must be valid for minimum 120 (one hundred twenty) days from the date of Technical Bid opening. If bidder does not submit / declare bid validity period, it will be presumed that the bid validity is 120 (one hundred twenty) days.

**Note:** In case of extension of Bid Opening Date, Bid validity must be extended suitably by the bidder, as and when advised by OIL.



**2.1.4** Bid Security must be furnished (except those exempted) as a part of the Technical Bid. The Bid Security (in original) must reach the Office of DGM-Contracts, OIL, Duliajan on or before 1:30 p.m. on the bid closing date. *Alternatively, applicants already having User ID & Password for OIL's e-portal can pay the requisite Bid Document cost & Bid security against the individual IFBs through the online payment gateway.*

The amount of Bid Security shall be as specified in the NIT.

**Note:**

(a) In case the Bidder submits Bid security in the form of Bank Guarantee (BG), the BG must be valid for minimum 150 days from the date of Technical bid opening.

(b) In case of extension of Bid Opening Date, Bid Security validity must be extended suitably by the bidder, as and when advised by OIL.

**2.1.5** OIL shall be entering into an Integrity Pact with the bidders as per format enclosed vide Part-VI of the tender document. This Integrity Pact proforma has been duly signed digitally by OIL's competent signatory. The proforma has to be returned by the bidder (along with the Un-priced Techno-Commercial Bid) duly signed (digitally) by the same signatory who sign the bid, i.e., who is duly authorized to sign the bid. Uploading the Integrity Pact with digital signature will be construed that all pages of the Integrity Pact have been signed by the bidder's authorized signatory who sign the Bid.

**2.1.6** The bidders must submit documentary evidence for BEC clause numbers **2.1.1, 2.1.1.1 and 2.1.2**. All the documents should be legible. The bidders must upload all the documents, digitally signed with "Organizational type" Digital Signature Certificate having Organization's name.

**OIL registered 'A' class bidders are exempted from submitting documents fulfilling their experience & turnover criteria as well as depositing the bid security amount as specified in the Clauses 2.1.1, 2.1.2 & 2.1.4 of BEC/BRC of this tender document, providing submission of his/her/their revised "One Time Security Deposit" in line with OIL's notification no.: CONT/CIV/1296/2016 dated 25.08.2016, on or before 13:30 Hrs. of Bid Closing/Opening date of this tender. However, OIL registered 'A' class bidders are not exempted from BEC clause no. 2.1.1.1 and accordingly, they must submit the necessary documents against this clause.**

**3.0 Notes to Clause no. 2.1.1 above:**

(a) **“Similar work”** mentioned in Paragraph 2.1.1 above means the following:

**Definition of similar work:** Construction of RCC/Assam Type Building including plumbing & internal electrification works.

(b) Non-submission of the documents as specified in all the paragraphs above will result in rejection of bids.

**4.0 SUBMISSION OF FORGED DOCUMENTS:** Bidders should note that Company may verify authenticity of all the documents /certificates / information submitted by the bidder(s) against the tender. In case at any stage of tendering process or Contract execution etc., if it is established that bidder has submitted forged documents / certificates / information towards fulfillment of any of the tender / contract conditions, Company shall immediately reject the bid of such bidder(s) or cancel / terminate the contract and forfeit EMD / SD submitted by the bidder(s), besides liable for action as per **clause no. H. (III) of Part-III SCC** of tender document.

**5.0** The bids conforming to the specifications, terms and conditions stipulated in the tender documents and considered to be responsive after subjecting to Bid Evaluation Criteria will be considered for further evaluation as given below:

- i) To ascertain the inter-se-ranking, the comparison of the responsive bids will be made.
- ii) In case of identical lowest offered rate by more than 1 (one) bidder, the selection of priority-1 and priority-2 bidder will be made by draw of lots amongst the parties offering the same lowest. The tender shall be awarded to priority-1 bidder only, but if priority-1 bidder fails to accept the LOI/found non-eligible/ fails to execute the jobs, then Company may think to award the same to priority -2 bidder after taking management approval for the same.

**Note:** The Company's Internal Estimated Rates, as indicated in Part-II, are inclusive of all overheads, taxes, duties, levies etc. except P.F. & Service Tax.

**(B). BID REJECTION CRITERIA (BRC):**

1. The bids are to be submitted in single stage under 2 (two) bid system i.e. Un-priced Techno-Commercial Bid and Price Bid together. Only the Price Bid should contain the quoted price.
2. Bid security shall be furnished as a part of the Techno Commercial Un-priced Bid. The amount of bid security should be as specified in the NIT.

Any bid not accompanied by a proper bid security will be summarily rejected.

3. Bid Documents / User Id & Password for OIL's E-Tender portal are not transferable. Bid made by parties who have not submitted the requisite tender fees will be rejected.
4. Any bid received in the form of Physical document/ Telex/Cable/Fax/E-mail will not be accepted.
5. Bidders must quote clearly and strictly in accordance with the price schedule outlined in Price Bidding Format attached under "Notes and Attachments" tab in the main bidding engine of OIL's e-Tender portal; otherwise the bid will be rejected. All other techno-commercial documents other than price details to be submitted with Un-priced Techno-Commercial Bid as per tender requirement in the c-Folder link (collaboration link) under "Technical RFx Response" Tab Page only.
6. Bidder must accept and comply with the following provisions as given in the Tender Document. Deviations to such provisions shall make the bid liable for rejection.
  - a. Firm price
  - b. EMD / Bid Bond
  - c. Period of validity of Bid
  - d. Price Schedule
  - e. Performance Bank Guarantee / Security deposit
  - f. Delivery / Completion Schedule
  - g. Scope of work
  - h. Guarantee of material / work
  - i. Liquidated Damages clause
  - j. Tax liabilities
  - k. Arbitration / Resolution of Dispute Clause
  - l. Force Majeure
  - m. Applicable Laws
  - n. Specifications
  - o. Integrity Pact
7. There should not be any indication of price in the Un-priced Techno-Commercial Bid. If there is any indication of price in the Un-priced Techno-Commercial Bid, Such Bid will be rejected straightway.

## **8.0 GENERAL:**

- i. In case bidder takes exception to any clause of bidding document not covered under BEC/BRC, then the Company has the discretion to load

or reject the offer on account of such exception if the bidder does not withdraw / modify the deviation when / as advised by Company. The loading so done by the Company will be final and binding on the bidders. No deviation will however be accepted in the clauses covered under BRC.

- ii. To ascertain the substantial responsiveness of the bid the Company reserves the right to ask the bidder for clarification in respect of clauses covered under BEC/BRC also and such clarifications fulfilling the BEC/BRC clauses in toto must be received or before the deadline given by the Company, failing which the offer will be will be evaluated based on the submission.. However, mere submission of such clarification shall not make the offer responsive, unless Company is satisfied with the substantial responsiveness of the offer.
- iii. If any of the clauses in the BRC contradict with other clauses of bidding document elsewhere, the clauses in the BRC shall prevail.
- iv. Bidder(s) must note that requisite information(s)/financial values etc. as required in the BEC/BRC & Tender are clearly understandable from the supporting documents submitted by the Bidder(s); otherwise Bids shall be rejected.
- v. OIL will not be responsible for delay, loss or non-receipt of applications for participating in the bid sent by mail and will not entertain any correspondence in this regard.

**(ON THE NJSP OF RS.100/-)**

**TO BE NOTORISED**

**To  
DGM-CONTRACTS  
OIL INDIA LIMITED  
DULIAJAN**

Dear Sirs,

**Sub: UNDERTAKING/DECLARATION BY THE BIDDER (S) IN  
RESPECT OF TENDER NO. CDI3097P17**

(To be submitted by the Bidders who are not covered under EPF&MP Act, 1952)

This is in connection with the Bid submitted by .....(Name of the Bidder) against Tender .....for .....(subject of the Tender). As per the conditions stipulated in Clause no.....(Name of the Provision/SCC etc.), we/I ,being authorized on behalf of .....(Name of the Contractor) hereby confirm and undertake as follows;

- That our Firm/Company shall be responsible to comply with all the applicable labour laws in respect of the present Contract.
- That we are fully conversant with the applicable laws and confirm that our Firm/Company is not covered under the Employees Provident Funds and Misc. Provisions Act, 1952 and applicable Rules there under, and therefore I we have not obtained any registration or Provident Fund Code under the Act.
- That if, during the period of the present Contract, we/our Firm /Company comes within the coverage of the aforesaid Acts or any other statutes; we shall comply with the same and submit the necessary documents to OIL. We further confirm that we will indemnify OIL towards any future statutory compliances/claims raised from any corner including statutory authorities against the Labour engaged by our Firm/Company in the Contract.
- That in the event of any contravention towards the applicable laws found on our part in respect of the present Contract, we undertake to indemnify OIL and deposit the claims, if any.

## **Annexure-I**

- That we shall fulfill all the obligations arising from under the labour laws in force from time to time and keep OIL indemnified against any loss/liability arising out of failure of our avoiding the laws.

We, further agree and undertake that in case of any violation of the above undertaking, OIL shall be at liberty to take appropriate action against us in terms of the Tender including but not limited to termination of contract and debarment from future business with OIL.

I/We declare that the information given above is true and any misstatement or misrepresentation or suppression of facts in connection with the above undertaking may entail rejection of the bid and cancellation of contract, if awarded.

Yours faithfully,

**1. Authorized Signatory** \_\_\_\_\_  
**(BIDDER)**

**Place:-**

**Date:-**

**CERTIFICATE OF ANNUAL TURNOVER & NET WORTH**

TO BE ISSUED BY PRACTISING **CHARTERED ACCOUNTANTS' FIRM** ON THEIR LETTER  
HEAD

**TO WHOM IT MAY CONCERN**

This is to certify that the following financial positions extracted from the audited financial statements of  
M/s..... (Name of the Bidder) for the last three (3) completed accounting years upto  
.....(as the case may be) are correct.

<b>YEAR</b>	<b>TURN OVER</b> In INR (Rs.)	<b>NET WORTH</b> In INR (Rs.)

Place:

Date:

Seal:

Membership No. :

Registration Code. :

Signature