



DOC. NO.: PS: CPC: MM: SCT: NIT: Rev 00 Dated 02nd Feb 2024
AMENDMENT: 01, Dated 15th Feb' 2024

NOTICE INVITING TENDER

TENDER NO.: BHEL/CPC/TLB/ENB/25/022

WORK DESCRIPTION:

DESIGN, MANUFACTURING, SUPPLY, RECEIPT AT SITE, ERECTION, PAINTING & FINISHING WORKS ETC. AND HANDING OVER TO SITE REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE-FABRICATED STEEL CLOSED STORAGE SHEDS (6 NOS.),STORE-IN-CHARGE ROOM (2 NOS), OFFICE BUILDINGS (2 NOS.), & SAFETY PARK (1NOS.) INCLUDING CIVIL & ARCHITECTURAL WORKS COMPLETE IN ALL RESPECT AND HANDING OVER OF COMPLETE INFRASTRUCTURE FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT,JHARSUGUDA,ODISHA, INDIA

PACKAGE- A: IMMOVABLE MATERIAL & PACKAGE- B: MOVABLE MATERIAL

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NOTICE INVITING E-TENDER (NIT)

NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES

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To

Dear Sir/Madam

Sub : NOTICE INVITING E-TENDER

Sealed offers in two part bid system (National competitive bidding (NCB)) are invited from reputed & experienced bidders (meeting PRE QUALIFICATION CRITERIA as mentioned in Annexure-1) for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

1.0 Salient Features of NIT

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	BHEL/CPC/TLB/ENB/25/022, Date: 01/07/2024
ii	BROAD SCOPE OF JOB	DESIGN, MANUFACTURING, SUPPLY, RECEIPT AT SITE, ERECTION, PAINTING & FINISHING WORKS ETC. AND HANDING OVER TO SITE REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE- FABRICATED STEEL CLOSED STORAGE SHEDS (6 NOS.),STORE-IN-CHARGE ROOM (2 NOS), OFFICE BUILDINGS (2 NOS.), & SAFETY PARK (1NOS.) INCLUDING CIVIL & ARCHITECTURAL WORKS COMPLETE IN ALL RESPECT AND HANDING OVER OF COMPLETE INFRASTRUCTURE FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT,JHARSUGUDA,ODISHA, INDIA PACKAGE- A: IMMOVABLE MATERIAL & PACKAGE- B: MOVABLE MATERIAL
iii	DETAILS OF TENDER DOCUMENT	
a	Volume-IA	Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc. Applicable
b	Volume-IB	Special Conditions of Contract (SCC) Applicable
c	Volume-IC	General Conditions of Contract (GCC) Applicable
d	Volume-ID	Forms and Procedures Applicable
e	Volume-II	Price Schedule (Absolute value). Applicable
iv	ISSUE OF TENDER DOCUMENTS	Tender documents will be available for downloading from BHEL eProcurement portal (https://eprocurebhel.co.in) till due date of submission: Start: 06/07/2024, Time: 18:00 Hrs Closes: 29/07/2024, Time: 10:00 Hrs. Brief information of the tenders shall also be available at BHEL website (www.bhel.com) Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	Date: 29/07/2024, Time: 10:00 Hrs Place : on https://eprocurebhel.co.in Applicable

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vi	OPENING OF TENDER	Date: 29/07/2024, Time: 16:30 Hrs <i>Notes:</i> (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may witness the opening of tender through e-Procurement portal only.	Applicable
vii	EMD AMOUNT	Rs. 5,00,000/- (Rupees Five lakhs Only)	Applicable
viii	COST OF TENDER	Free	
ix	LAST DATE FOR SEEKING CLARIFICATION	Date: 19/07/2024 <i>Along with soft version also, addressing to undersigned & to others as per contact address given below:</i> 1) Name: Tapish Kumar Designation: Manager Deptt: Sub-Contracting Deptt, CPC Address: BHEL Sadan, 8 th Floor, Plot No. 25, Sec 16A, Noida - 201301 Phone (Mobile): 9010903666 Email: tapishkhandelwal@bhel.in 2) Name: Kamlesh Kumar Designation: DGM Deptt: Sub-Contracting Deptt, CPC Address: BHEL Sadan, 8th Floor, Plot No. 25, Sec 16A, Noida - 201301 Phone: (Mobile): 9425554615 Email: kamleshbhel@bhel.in	Applicable
x	SCHEDULE OF PRE BID DISCUSSION (PBD)	Date: 15/07/2024, Time: 1500 hrs. Place: Bharat Heavy Electricals Limited, Central Procurement Cell (CPC), 8th Floor, BHEL Sadan, Plot no. 25, Sector 16A, Noida-201301, Uttar Pradesh <i>Interested bidders are requested to confirm their participation for Pre Bid Discussion (PBD) meeting either by physical meeting at above mentioned place or through Video Conferencing (VC) link given below:-</i> <h2>Microsoft Teams Need help?</h2> Join the meeting now Meeting ID: 432 073 308 438	Applicable

		Passcode: zFdtwy <hr/> Join on a video conferencing device Tenant key: teams@bhel.onpexip.com Video ID: 131 881 478 8 More info For organizers: Meeting options https://teams.microsoft.com/l/meetup-join/19%3ameeting_Y2NmYThmYjUtNzVkMS00ODVhLWI5NWYtNjZhMTkyOTdjYzI5%40thread.v2/0?context=%7b%22Tid%22%3a%22b5fad749-aea2-4c55-a02b-fdbd7bcf8a8c%22%2c%22Oid%22%3a%2209c4a16d-30bb-437e-8512-edadfc81053%22%7d	
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	Please refer clause no. 15.	Applicable
xii	TYPES OF CONTRACT	WORKS	
xiii	LATEST UPDATES	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc. to Tender Specifications will be hosted in BHEL webpage (www.bhel.com --> Tender Notifications -> View Corrigendums), BHEL eProcurement portal (https://eprocurebhel.co.in) and not in the newspapers . Bidders to keep themselves updated with all such information.	

2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed digitally using Class III DSC & uploaded in E-Procurement Portal, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**

3.0 Instructions for Cost of Tender - Not Applicable.

4.0 Unless specifically stated otherwise, bidder shall deposit EMD as per clause 1.9 of General Conditions of Contract. Proof of remittance of EMD should be uploaded in the E-Procurement Portal and originals, as applicable, shall be sent to the officer inviting tender within a reasonable time, failing which the offer is liable to be rejected.

For Electronic Fund Transfer the details are as below:-

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a) **Name of the Beneficiary** -: Bharat Heavy Electricals Limited

b) **Bank Particulars (For EMD Collection)** :

1) For Receipt of EMD In Cash/NEFT/RTGS/DD :

Name of account : Bharat Heavy Electricals limited

Account No : 00000030117844270

Branch: State Bank of India, Asian Games Village Branch, NCUI Building, Siri Institutional Area, August Kranti Marg, New Delhi-110016.

IFSC code: SBIN0007407

2) For Receipt of EMD In BG :

a) For Beneficiary bank details :

Name of account : Bharat Heavy Electricals limited

Account No : 00000030117844270

Branch: State Bank of India, Asian Games Village Branch, NCUI Building, Siri Institutional Area, August Kranti Marg, New Delhi-110016.

IFSC code: SBIN0007407

b) For sending the SFMS of BG, please use SBI Bank IFSC Code SBIN0001188

5.0 Procedure for Submission of Tenders: This is an E-tender floated online through our E-Procurement Site (<https://eprocurebhel.co.in>). The bidder should respond by submitting their offer online only in our e-Procurement platform at (<https://eprocurebhel.co.in>). Offers are invited in two-parts only.

Documents Comprising the e-Tender

The tender shall be submitted online ONLY EXCEPT EMD (in physical form) as mentioned below:

a. Techno-commercial Bid (UN priced Tender)

All Techno-commercial details (e.g. EMD, Documentary evidence in support of Pre Qualifying criteria, applicable forms, etc. should be attached in e-tendering module, failing which the tender stands invalid & may be REJECTED.

b. Price Bid:

- i. Prices are to be quoted in the attached Price Bid format online on e-tender portal.
- ii. The price should be quoted for the accounting unit indicated in the e-tender document.
- iii. Note: It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.
- iv. A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.
- v. A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.

DO NOT'S

Bidders are requested NOT to submit the hard copy of the Bid. In case offer is sent through hard copy/fax/telex/cable/electronically in place of e-tender, the same shall not be considered. **Also, uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.**

Digital Signing of e-Tender

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Tenders shall be uploaded with all relevant PDF/zip format. The relevant tender documents should be uploaded by an authorized person having Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION digital signature certificate (DSC).

The Requirement:

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate) (**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

The contact details of the service provider are given below:

For any technical related queries please call at 24 x 7 Help Desk Number

0120-4001 002, 0120-4001 005 & 0120-6277 787

International bidders are requested to prefix 91 as country code

Email Support - Technical - support-eproc@nic.in

Note: For any Issues or Clarifications relating to the published tenders, bidders are requested to contact the respective Tender Inviting Authority

The process of utilizing e-procurement necessitates usage of **DSC (Digital Signature Certificate) (Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION)** and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process.

The Vendors DSC Address List link as given below:

https://eprocurebhel.co.in/nicgep/app?component=%24DirectLink_0&page=DSCInfo&service=direct&session=T&sp=SDSCAddress.pdf

Vendors are also requested to go through seller manual available on <https://eprocurebhel.co.in>.

- 6.0** Instructions regarding Hard/Paper Bid - Not Applicable.
- 7.0** Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.
- 8.0** BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).
- 9.0** **Not Applicable**
- 10.0** Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc. before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.
- 11.0** For any clarification on the tender document, the bidder may seek the same in writing or through e-mail and/or through e-procurement portal, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 12.0** BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.

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- 13.0** In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc. or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0** Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0** Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **if applicable**, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at Clause no. 1, Salient Features of NIT, Sl. no. (xi) above.**

“Integrity Pact (IP)”

- (a) IP is a tool to ensure that activities and transactions between the Company and its Bidders/ Contractors are handled in a fair, transparent and corruption free manner. Following Independent External Monitors (IEMs) on the present panel have been appointed by BHEL with the approval of CVC to oversee implementation of IP in BHEL.

Sl. No.	IEM	Email
1.	Shri Otem Dai, IAS (Retd.)	iem1@bhel.in
2.	Shri Bishwamitra Pandey, IRAS (Retd.)	iem2@bhel.in
3.	Shri Mukesh Mittal, IRS (Retd.)	iem3@bhel.in

- (b) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two/ three part bid). Only those bidders who have entered into such an IP with BHEL would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.
- (c) Please refer Section-8 of IP for Role and Responsibilities of IEMs. In case of any complaint arising out of the tendering process, the matter may be referred to any of the above IEM(s). All correspondence with the IEMs shall be done through email only.

Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are as per Clause no. 1, Salient Features of NIT, Sl. No. (ix) above.

- 16.0** The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre-Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under DEBARMENT.
- 17.0** Instructions regarding Hard Bid/Paper Bid – Not Applicable
- 18.0** Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.

19.0 Reverse Auction – BHEL shall be resorting to Reverse Auction (RA) (Extant Guidelines as available on <<https://www.bhel.com/guidelines-reverse-auction-2021>> on “supplier registration page”) for this tender. RA shall be conducted among all the techno-commercially qualified bidders.

Price Bids of all the techno-commercially qualified bidders shall be opened and same shall be considered as initial bids of bidders in RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their sealed envelope price bid along with applicable loading, if any, shall be considered for ranking.

20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.

21.0 In case the bidder is an “Indian Agent of Foreign Principals”, ‘Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.

22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.

23.0 Consortium Bidding (or Technical Tie up) is not applicable.

24.0 The bidder shall submit documents in support of possession of ‘Qualifying Requirements’ duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.

25.0 The bidder may have to produce original document for verification if so decided by BHEL.

26.0 The consultant / firm (and any of its affiliates) shall not be eligible to participate in tender(s) for the related works or services for the same project, if they were engaged for the consultancy services.

27.0 Guidelines/rules in respect of Suspension of Business dealings, Vendor evaluation format, Quality, Safety & HSE guidelines, Experience Certificate, etc. may undergo change from time to time and the latest one shall be followed. The abridged version of extant ‘Guidelines for suspension of business dealings with suppliers/ contractors’ is available on www.bhel.com on “**supplier registration page**” i.e., <<https://www.bhel.com/guidelines-suspension-business-dealings-supplierscontractors>>.

28.0 The offers of the bidders who are on the debarred list and also the offer of the bidders, who engage the services of the debarred firms, shall be rejected. The list of **debarred firms** is available on BHEL web site www.bhel.com on “**supplier registration page** i.e., <<https://www.bhel.com/list-debarred-firms>>.”

28.1 Integrity commitment, performance of the contract and punitive action thereof:

28.1.1 Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the tender Process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

28.1.2 Commitment by Bidder/ Supplier/ Contractor:

- (i) The bidder/ supplier/ contractor commit to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
- (ii) The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with

the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.

- (iii) The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the prices or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extent guidelines of the company available on www.bhel.com and / or under applicable legal provisions.

29.0 Micro and Small Enterprises (MSE): This is a WORKS CONTRACT. MSE BENEFIT SHALL NOT BE APPLICABLE FOR THE PACKAGE.

30.0 The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website < <https://www.bhel.com/bhel-fraud-prevention-policy-0> > and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice.

31.0 PREFERENCE TO MAKE IN INDIA:

For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/Non-Local Supplier and purchase preferences to Class I local supplier, is as defined in Public Procurement (Preference to Make in India), Order 2017 dated 04.06.2020 issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

31.1 Compliance to Restrictions under Rule 144 (xi) of GFR 2017

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of this Clause shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Clause means: -
 - a. An entity incorporated established or registered in such a country; or
 - b. A subsidiary of an entity incorporated established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose *beneficial owner* is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The *beneficial owner* for the purpose of (III) above will be as under:

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1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.

Explanation

- a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.
- b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.
3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person has ownership of or entitlement to more than fifteen percent of the property or capital or profits of the such association or body of individuals.
4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

- V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Note:

- (i) The bidder shall provide undertaking for their compliance to this Clause, in the format provided in Annexure-11.
- (ii) Registration of the bidder with Competent Authority should be valid at the time of submission of bids and at the time of acceptance of the bids.

32.0 Bid should be free from correction, overwriting, use of corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection. All overwriting/cutting, etc. will be numbered by bid opening officials and announced during bid opening.

33.0 In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.

In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by a toss/ draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).

Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.

34.0 The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). 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 cartelization in the bidding process.

In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

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35.0 A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. The bidder found to have a conflict of interest shall be disqualified. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) they have controlling partner (s) in common;
or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them;
or
- c) they have the same legal representative/agent for purposes of this bid;
or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder;
or
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid;
or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorize only one agent/dealer. There can be only one bid from the following:
 - (i). The principal manufacturer directly or through one Indian agent on his behalf, and
 - (ii). Indian/foreign agent on behalf of only one principal;
- or
- g) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid;
- or
- h) In case of a holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business."

36.0 Performance Evaluation:

- 36.1 The Performance Evaluation shall be done when the contract is 'Under execution', i.e, works in progress as per the following:
- i). Up to execution of 90% of anticipated Contract Value in case of Civil, MM, Structural and Turbo Blower Packages
 - ii). Up to Steam Blowing in case of Boiler/ESP/Piping Packages
 - iii). Up to Synchronization in all Balance Packages
- Note: BHEL at its discretion can extend (or reduce in exceptional cases in line with Contract conditions) the period defined against (i), (ii) and (iii) above, depending upon the balance scope of work to be completed.
- 36.2 Contractor shall provide the latest contact details i.e. mail-ID and Correspondence Address to SCT Department, so that same can be entered in the Contractor Performance Evaluation System, and in case of any change/discrepancy same shall be informed immediately. Login Details for viewing scores in Contractor Performance Evaluation System shall be provided to the Contractor by SCT Department.
- 36.3 Performance Evaluation for Activity Month shall be completed in Evaluation Month (i.e. month next to Activity Month) or in rare cases in Post Evaluation Month (i.e. month next to Evaluation Month) after approval from Competent Authority. In case scores are not acceptable, Contractor can submit Review

Request to GM Site/ GM Project latest by 27th of Evaluation Month or 5 days after approval of score, whichever is later. However, acceptance/rejection of 'Review Request' solely depends on the discretion of GM Site/GM Project. After acceptance of Review Request, evaluation score shall be reviewed at site and the score after completion of review process shall be acceptable and binding on the contractor.

36.4 Project on Hold due to reasons not attributable to bidder –

- i. **Short hold:** Evaluation shall not be applicable for this period, however, Loading will be considered.
- ii. **Long hold:** Short hold for continuous six months and beyond or hold on account of Force Majeure shall be considered as Long Hold. Evaluation as well as Loading shall not be considered for this period.

36.5 Performance evaluation as specified above in this clause is applicable to Prime bidder and Consortium partner (or Technical tie up partner) for their respective scope of work.

36.6 Bidders to note that the risk of non-evaluation or non-availability of the 'Monthly Performance Evaluation' reports as per relevant formats is to be borne by the Bidder.

37.0 **Order of Precedence:**

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- a. Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the tender documents by BHEL
- b. Notice Inviting Tender (NIT)
- c. Price Bid
- d. Technical Conditions of Contract (TCC)—Volume-1A
- e. Special Conditions of Contract (SCC) —Volume-1B
- f. General Conditions of Contract (GCC) —Volume-1C
- g. Forms and Procedures —Volume-1D

It may please be noted that guidelines/ circulars/ amendments/ govt. directives issued from time to time shall also be applicable.

for BHARAT HEAVY ELECTRICALS LTD
MANAGER / SCT- CPC

Enclosure:

- i). Annexure-1: Pre Qualifying Requirements.
- ii). Annexure-2: Check List.
- iii). Annexure-3: Reverse Auction Process Compliance Form
- iv). Annexure-4: Authorization of representative who will participate in the online Reverse Auction Process
- v). Annexure-5: RA Price Confirmation and Breakup
- vi). Annexure-6: Integrity Pact
- vii). Annexure-7: Undertaking as per C4 of Annexure-1 i.e. PQR
- viii). Annexure-8: Declaration reg. Related Firms & their areas of Activities
- ix). Annexure- 9: Declaration reg. minimum local content in line with revised public procurement
- x). Annexure-10: Declaration by the Contractor
- xi). Other Tender documents as per this NIT.

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ANNEXURE - 1**PRE QUALIFYING REQUIREMENTS (PQR)**

JOB	DESIGN, MANUFACTURING, SUPPLY, RECEIPT AT SITE, ERECTION, PAINTING & FINISHING WORKS ETC. AND HANDING OVER TO SITE REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE- FABRICATED STEEL CLOSED STORAGE SHEDS (6 NOS.),STORE-IN-CHARGE ROOM (2 NOS), OFFICE BUILDINGS (2 NOS.), & SAFETY PARK (1NOS.) INCLUDING CIVIL & ARCHITECTURAL WORKS COMPLETE IN ALL RESPECT AND HANDING OVER OF COMPLETE INFRASTRUCTURE FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT,JHARSUGUDA,ODISHA, INDIA PACKAGE- A: IMMOVABLE MATERIAL & PACKAGE- B: MOVABLE MATERIAL
TENDER NO.	BHEL/CPC/TLB/ENB/25/022

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
			Remarks by Bidder
A	Submission of Integrity Pact duly signed	Applicable	
B	<u>Technical:</u> Bidder who wish to participate should have experience as follows Bidder should have executed "Pre-Engineered Building Works Comprising of Design, Supply & Construction" for any one of the following in the last seven years from latest date of bid submission	Applicable	
B.1			
B.1.1	Executed One (1) work of value not less than Rs. 640 Lakhs against Single Work Order OR		
B.1.2	Executed Two (2) works each of value not less than Rs. 400 Lakhs against maximum two work orders OR		
B.1.3	Executed Three (3) works each of value not less than Rs. 320 Lakhs against maximum three work orders		
C	<u>Financial:</u> TURNOVER: Bidders must have achieved an average annual financial turnover (Audited) of Rs. 240Lakhs or more over last three Financial Years (FY) ending on 31.03.24 (i.e., F.Y.2021-22,2022-23,2023-24). If audited balance sheet of 2023-24 is not available, then last three years shall be considered ending on 31.03.23 (i.e., F.Y. 2020-21, 2021-22, 2022-23).	Applicable	
C-1			
C-2	<u>NETWORTH (only in case of Companies):</u> Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive	Applicable	

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C-3	PROFIT: Bidder must have earned profit in any one of the Five financial years ending on 31.03.24 (i.e., F.Y.2019-20,2020-21,2021-22,2022-23 & 2023-24). If audited balance sheet of 2023-24 is not available, then last five years shall be considered ending on 31.03.23 (i.e., F.Y.2018-19, 2019-20, 2020-21, 2021-22 & 2022-23). Bidder to submit audited balance sheet and Profit & Loss Statement for the year as supporting documents.	Applicable	
C-4	Bidder must not be under Insolvency Resolution Process or Liquidation or Bankruptcy Code Proceedings (IBC) as on date, by NCLT or any adjudicating authority/authorities, which will render him ineligible for participation in this tender, and shall submit undertaking (Annexure-7) to this effect.	Applicable	
D	Not Applicable		
E	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to D	Applicable	BY BHEL
F	Consortium criteria	Not Applicable	
<u>Explanatory Notes for the PQR:</u> 1. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above along with all annexures. 2. In case audited Financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i.e. total divided by three. 3. If financial statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by Chartered Accountant. 4. C-2: NETWORTH: Shall be calculated based on the latest Audited Accounts as furnished for C-1 above. Net worth = Paid up share capital + Reserves. (Net worth is required to be evaluated in case of companies). 5. C-3: PROFIT: Shall be profit (PBT) earned during any one of the five financial years as in C-3 above. 6. For evaluation of PQR, in case Bidder alone does not meet the pre-qualifying technical criteria B-1 above, bidder may utilize the experience of its Parent/ Subsidiary Company along with its own experience, subject to following: i. The parent company shall have a controlling stake of ≥50% in the subsidiary company (as per Format-1). ii. The Parent Company/ Subsidiary Company of which experience is being utilized for bidding shall submit Security Deposit(SD) equivalent to 1% of the total contract value iii. The parent/ subsidiary company and bidder shall provide an undertaking that they are jointly or severally responsible for successful performance of the contract (as per Format-2). 7. Completion date for achievement of the technical criteria specified in the Technical' criteria of PQR (as in 'B' above) should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work. Completion date shall be reckoned from the "FY quarter of bid submission". 8. EXECUTED' means the bidder should have achieved the criteria specified in the Technical criteria of PQR (as in 'B' above) even if the Contract has not been completed or closed.			

9. Bidder shall essentially meet all the Qualifying Requirements i.e., B as above, in the last seven years as on latest date of bid submission.

10. Explanatory Notes for QR 'B-1':

- For QR 'B-1' above, actual executed value shall be considered.
- The evaluation currency for this tender shall be **INR**.
- For QR 'B-1' above, Value of work is to be updated with indices for "All India Avg. Consumer Price index for industrial workers" and "Monthly Whole Sale Price Index for All Commodities" with base month as per last month of work execution and indexed up to three (3) months prior to the month of latest due date of bid submission as per following formula;

$$P = R + 0.425 \times R \times \frac{(X_N - X_0)}{X_0} + 0.425 \times R \times \frac{(Y_N - Y_0)}{Y_0}$$

Where

P = Updated value of work

R = Value of executed work

X_N = All India Avg. Consumer Price index for industrial workers for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

X_0 = All India Avg. Consumer Price index for industrial workers for last month of work execution.

Y_N = Monthly Whole Sale Price Index for All Commodities for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

Y_0 = Monthly Whole Sale Price Index for All Commodities for last month of work execution.

NOTES:

BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

Credentials submitted by the bidder against "PRE QUALIFYING CRITERIAS" shall be verified for its authenticity. In case, any credential (s) is/are found unauthentic, offer of the bidder is liable to the rejection. BHEL reserves the right to initiate any further action as per extant guidelines for Suspension of Business Dealings.

Format-1**Certificate for relationship between Parent Company / Subsidiary Company and the bidder**

To,

.....

.....

Dear Sir,

Sub: Bid for NIT Nodated..... for “.....” (name of the tender).

We hereby certify that M/s..... is Parent Company/ Subsidiary Company of M/s(the bidder) and details of equity holding of the Parent Company in Subsidiary Company as on(not earlier than seven days prior to the Bid Submission Date) are given as below:

Name of Parent Company	Name of Subsidiary Company	Percentage of Equity Holding of Parent Company in Subsidiary Company

(Insert Name and Signature of Statutory Auditor or practicing Company Secretary of the Bidder)

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Format-2

Undertaking from the Parent Company/ Subsidiary Company of the bidder
(On the Letter Head of Parent Company/ Subsidiary Company, as applicable)

From,
Name:
Full Address:

Telephone No.:
E-mail address:
Fax/No.:

To,
.....
.....

Dear Sir,

We refer to the NIT No dated for “.....” (name of the Tender).

“We have carefully read and examined in detail the NIT/Tender Terms and Conditions, including in particular, Clause of the NIT/Tender, regarding submission of an Undertaking, as per the prescribed Format 1 of the NIT/ Tender.

We confirm that M/s..... (the Bidder) has been authorized by us to use our Technical capability for meeting the Technical Criteria as specified in Clause..... of the PQR of the NIT/Tender referred above.

We agree to submit the Security Deposit equivalent to 1% of the total contract value in addition to Security Deposit to be submitted by Bidder as per Clause.....of the NIT/Tender for fulfilment of all obligations in terms of provisions of the contract, in the event of (the Bidder) being selected as the Successful Bidder.

We confirm that we along with M/s..... (the bidder), are jointly or severally responsible for successful performance of the contract.

We confirm that our company shall not participate in the above tender as a ‘Standalone Bidder’ or as a ‘Consortium bidder’ and also shall not authorize any other bidder to use our Technical capability for the above tender.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the referred NIT/Tender.

**Signature of Managing Director/
Authorized signatory of Parent/ Subsidiary Company**

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ANNEXURE - 2**CHECK LIST****NOTE: - Tenderers are required to fill in the following details and no column should be left blank**

1	Name of the Tenderer		
2	Address of the Tenderer		
3	Type of the Firm/ Company		
(i)	In case of Individual Tenderer	His / her full name, address and place & nature of business shall be furnished along with the offer.	
(ii)	In case of Partnership Firm	The names of all the partners and their addresses, A copy of the partnership deed/instrument of partnership duly certified by the Notary Public shall be furnished along with the offer..	
(iii)	In case of Companies	a) Date and place of registration including date of commencement certificate in case of Public Companies (certified copies of Memorandum and articles of Association are also to be furnished). b) Nature of business carried on by the Company and the provisions of the Memorandum relating thereof.	
4.a	Details of Contact person for this Tender	Name: Mr./ Ms. Designation: Telephone No / Mobile No: Email ID:	
4.b	Details of alternate Contact person for this Tender	Name : Mr/ Ms Designation: Telephone No / Mobile No: Email ID:	
5	EMD DETAILS (Remittance of EMD should be in line with Mode of Deposit as detailed in clause 1.9.1 of General Conditions of Contract (Volume IC Book-II) a. Cash portion of EMD (Minimum Rs 2 Lakhs) b. Balance portion of EMD	a. Mode of Remittance: Ref No: Date: Amount: b. Mode of Remittance: Ref No: Date: Amount:	
6	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE OF OFFER SUBMISSION	
	DESCRIPTION	Applicability (BY BHEL)	Enclosed By Bidder
7	Whether all pages of the Tender documents including annexures, appendices etc are read and understood	Applicable	YES / NO

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8	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE – 1) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
9	Audited Balance Sheet and profit & Loss Account for the last Three/Five years as mentioned at PQR C-1 & C-3.	Applicable	YES / NO
10	Copy of PAN Card	Applicable	YES / NO
11	Copy of GST registration	Applicable	YES / NO
12.	Submission of copy of Registration /Incorporation Certificate, Partnership Deed (Certified by Notary Public) as applicable for firm	Applicable	YES / NO
13	Organization Chart of the tenderer's organization, including the names, addresses and contact information of the Directors/Partners shall be furnished along with the offer.	Applicable	YES / NO
14	Integrity Pact (Annexure – 6 of NIT)	Applicable	YES / NO
15	Annexures – 3, 4 & 5 of NIT	Applicable	YES / NO
16	Annexures – 7, 8, 9 & 10 of NIT	Applicable	YES / NO
17	Offer forwarding letter / tender submission letter [Form No. F-01 (Rev 00)]	Applicable	YES / NO
18	Declaration by Authorized Signatory [Form No: F-02 (Rev 00)]	Applicable	YES / NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement [Form No: F-03 (Rev 00)]	Applicable	YES / NO
20	Declaration by Authorized Signatory regarding Authenticity of submitted documents [Form No: F-04 (Rev 00)]	Applicable	YES / NO
21	No Deviation Certificate [Form No: F-05 (Rev 00)]	Applicable	YES / NO
22	Declaration confirming knowledge about Site Conditions [Form No: F-06 (Rev 00)]	Applicable	YES / NO
23	Declaration for relation in BHEL [Form No: F-07 (Rev 00)]	Applicable	YES / NO
24	Non-Disclosure Certificate [Form No: F-08 (Rev 00)]	Applicable	YES / NO
25	Bank Account Details for E-Payment [Form No: F-09 (Rev 00)]	Applicable	YES / NO
26	Format for seeking clarification [Form No: F-10 (Rev 00)]	Applicable	YES / NO
27	Analysis of Unit rates Quoted [Form No: F-11 (Rev 00)]	Applicable	YES / NO
28	Capacity Evaluation of Bidder for current Tender [Form No: F-12 (Rev 00)]	Applicable	YES / NO
29	Tie Ups/Consortium Agreement are submitted as per format	Not Applicable	YES / NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED ABOVE APPLICABLE DOCUMENTS ARE LIABLE TO BE SUMMARILY REJECTED.

DATE :

Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)

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ANNEXURE - 3**Reverse Auction Process Compliance Form**

(The bidders are required to print this on their company's letterhead and sign, stamp before RA)

To

- M/s. {Service provider}
- Postal address}

Sub: Agreement to the Process related Terms and Conditions

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ document for {Items} against BHEL enquiry/ RFQ no.{.....} dtd. {.....}
This letter is to confirm that:

- 1) The undersigned is authorized official/ representative of the company to participate in RA and to sign the related documents.
- 2) We have studied the Reverse Auction guidelines (as available on www.bhel.com), and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We also confirm that, in case we become L1 bidder, we will FAX/ email the price confirmation & break up of our quoted price as per Annexure - 5 within **two** working days (of BHEL) after completion of RA event, besides sending the same by registered post/ courier both to M/s. BHEL and M/s. {Service provider.}

We, hereby confirm that we will honor the Bids placed by us during the auction process.

With regards

Signature with company seal

Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

Sign this document and FAX/ email it to M/s {Service provider} at {.....} prior to start of the Event.

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ANNEXURE – 4**Authorization of representative who will participate in the on line Reverse Auction Process:**

1	NAME OF THE BIDDER	
2	NAME & DESIGNATION OF OFFICIAL	
3	POSTAL ADDRESS (COMPLETE)	
4	TELEPHONE NOS. (LAND LINE & MOBILE BOTH)	
5	E-MAIL ADDRESS	
6	NAME OF PLACE/ STATE/ COUNTRY, WHEREFROM S/HE WILL PARTICIPATE IN THE REVERSE AUCTION	

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ANNEXURE – 5

RA price confirmation and breakup
(To be submitted by L1 bidder after completion of RA)

To

- M/s. Service provider
- Postal address

CC: M/s BHEL

{Unit-
Address-}

Sub: **Final price quoted during Reverse Auction and price breakup**

Dear Sir,

We confirm that we have quoted.

Rs.{_____ in value & in words _____} for item(s) covered under tender enquiry No. {...} dt.{...}

Total price of the items covered under above cited enquiries is inclusive of {Packing & forwarding, GST freight and insurance charges up to {.....} District, {.....} State and Type Test Charges etc., other as per NIT}

as our final landed prices as quoted during the Reverse Auction conducted today {date} which will be valid for a period of {_____ in nos. & in words _____} days.

The price break-up is as given below.

Total

=====

- Rs. in value & in words

=====

Yours sincerely,

For _____

Name:**Company:****Date:****Seal:**

ANNEXURE – 6**INTEGRITY PACT**
Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi - 110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for **Tender No.: BHEL/CPC/TLB/ENB/25/022** for the work of "DESIGN, MANUFACTURING, SUPPLY, RECEIPT AT SITE, ERECTION, PAINTING & FINISHING WORKS ETC. AND HANDING OVER TO SITE REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE- FABRICATED STEEL CLOSED STORAGE SHEDS (6 NOS.),STORE-IN-CHARGE ROOM (2 NOS), OFFICE BUILDINGS (2 NOS.), & SAFETY PARK (1NOS.) INCLUDING CIVIL & ARCHITECTURAL WORKS COMPLETE IN ALL RESPECT AND HANDING OVER OF COMPLETE INFRASTRUCTURE FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT,JHARSUGUDA,ODISHA, INDIA
PACKAGE- A: IMMOVABLE MATERIAL & PACKAGE- B: MOVABLE MATERIAL "

The Principal values full compliance with all relevant laws of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint Independent External Monitor(s), 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

1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles: -

- 1.1.1 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 self or third person, any material or immaterial benefit which the person is not legally entitled to.
- 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
- 1.1.3 The Principal will exclude from the process all known prejudiced persons.

1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, 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(s)/ Contractor(s)

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- 2.1 The Bidder(s)/ Contractor(s) commit himself 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.
- 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or 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, immaterial or any other 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.
- 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or 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 cartelization in the bidding process.
- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) 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.
- 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and will await their decision in the matter.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process or take action as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 - Compensation for Damages

- 4.1 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 the damages equivalent Earnest Money Deposit/ Bid Security.
- 4.2 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.

Section 5 - Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 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.

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Section 6 - Equal treatment of all Bidders/ Contractors / Sub-contractors

- 6.1 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors. In case of sub-contracting, the Principal contractor shall be responsible for the adoption of IP by his sub-contractors and shall continue to remain responsible for any default by his sub-contractors.
- 6.2 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 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External 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.
- 8.2 The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The Bidder(s)/ Contractor(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/ Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s) / Sub-contractor(s) with confidentiality in line with Non- disclosure agreement.
- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract 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.
- 8.5 The role of IEMs is advisory, would not be legally binding and it is restricted to resolving issues raised by an intending bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter should be examined by the full panel of IEMs jointly as far as possible, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to CMD, BHEL, at the earliest. They may also send their report directly to the CVO and the Commission, in case of suspicion of serious irregularities requiring legal/ administrative action. IEMs will tender their advice on the complaints within 10 days as far as possible.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.9 IEM should examine the process integrity; they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the organization should be looked into by the CVO of the concerned organisation.
- 8.10 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code/ Prevention of Corruption Act, and the CMD, BHEL 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.
- 8.11 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.12 The word 'Monitor' would include both singular and plural.



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Section 9 - Pact Duration

- 9.1 This Pact shall be operative from the date IP is signed by both the parties till the final completion of contract for successful bidder and for all other bidders 6 months after the contract has been awarded. Issues like warranty / guarantee etc. should be outside the purview of IEMs.
- 9.2 If any claim is made/ lodged during currency of IP, 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 the CMD, BHEL.

Section 10 - Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.
- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 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.
- 10.5 Only those bidders / contractors who have entered into this agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On behalf of the Principal

(Office Seal)

For & On behalf of the Bidder/ Contractor

(Office Seal)

Place Noida

Date 06/07/2024

Witness: _____

(Name & Address) _____

Witness: _____

(Name & Address) _____

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ANNEXURE – 7

UNDERTAKING

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,

(Name and Designation of Officer of BHEL inviting the Tender);
Bharat Heavy Electricals Limited,
Central Procurement Cell (CPC), 8th Floor, BHEL SADAN,
Plot No. 25, Sector-16A, Noida, U.P.-201301

Dear Sir/Madam,

Sub: Declaration Regarding Insolvency/ Liquidation/ Bankruptcy Proceedings

Ref: NIT/Tender Specification No: BHEL/CPC/TLB/ENB/25/022

I/We, _____

declare that, I/We am/are not under insolvency resolution process or liquidation or Bankruptcy Code Proceedings (IBC) as on date, by NCLT or any adjudicating authority/authorities, which will render us ineligible for participation in this tender.

**Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)**

Place:

Date:

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ANNEXURE-8**DECLARATION**

Date: _____

To:

(Name and Designation of Officer of BHEL inviting the Tender);Bharat Heavy Electricals Limited,
Central Procurement Cell (CPC), 8th Floor, BHEL SADAN,
Plot No. 25, Sector-16A, Noida, U.P.-201301Sub: **Details of related firms and their area of activities**

Dear Sir/ Madam,

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, _____ (NA, if not applicable)

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
...		

Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.

Regards,

(_____)

From: M/s _____

Supplier Code: _____

Address: _____

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Annexure-9

**DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH
REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH JUNE,
2020 AND SUBSEQUENT ORDER(S)**

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

To,

_____ (Name and Designation of Officer of BHEL inviting the Tender);

Bharat Heavy Electricals Limited,
Central Procurement Cell (CPC), 8th Floor, BHEL SADAN,
Plot No. 25, Sector-16A, Noida, U.P.-201301

Dear Sir,

Sub: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 04th June, 2020 and subsequent order(s).

Ref : 1) NIT/Tender Specification No: BHEL/CPC/TLB/ENB/25/022,

2) All other pertinent issues till date

We hereby certify that the items/works/services offered by..... (specify the name of the organization here) has a local content of _____ % and this meets the local content requirement for '**Class-I local supplier**' / '**Class II local supplier**' ** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 04.06.2020 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made are as follows:

1. _____ 2. _____

3. _____ 4. _____

Thanking you,

Yours faithfully,

(Signature, Date & Seal of
Authorized Signatory of the Bidder)

**** - Strike out whichever is not applicable.**

Note:

1. Bidders to note that above format Duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.

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2. In case the bidder's quoted value is in excess of Rs. 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers other than companies).
3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.

ANNEXURE-10**DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017***(To be typed and submitted in the Letter Head of the Entity/ Firm providing certificate as applicable)*

To,

(Name and Designation of Officer of BHEL inviting the Tender);

Bharat Heavy Electricals Limited,
Central Procurement Cell (CPC), 8th Floor, BHEL SADAN,
Plot No. 25, Sector-16A, Noida, U.P.-201301
Dear Sir,

Sub: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017**Ref :** 1) NIT/Tender Specification No: BHEL/CPC/TLB/ENB/25/022,
2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. I certify that _____ **(SPECIFY THE NAME OF THE ORGANIZATION HERE)**, is not from such a country/ has been registered with the Competent Authority (*attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT)*); and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. (*attach relevant valid registration, if applicable*)

I hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

Thanking you,
Yours faithfully,

**(Signature, Date & Seal of
Authorized Signatory of the Bidder)**

Note: Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

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TALABIRA

**CLOSED STORAGE
SHED, STORE-IN-
CHARGE ROOM,
OFFICE BUILDING
& SAFETY PARK**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

DESIGN, MANUFACTURING, SUPPLY, RECEIPT AT SITE, ERECTION, PAINTING & FINISHING WORKS ETC. AND HANDING OVER TO SITE REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE- FABRICATED STEEL CLOSED STORAGE SHEDS (6 NOS.),STORE-IN-CHARGE ROOM (2 NOS), OFFICE BUILDINGS (2 NOS.), & SAFETY PARK (1NOS.) INCLUDING CIVIL & ARCHITECTURAL WORKS COMPLETE IN ALL RESPECT AND HANDING OVER OF COMPLETE INFRASTRUCTURE FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT,JHARSUGUDA,ODISHA, INDIA

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC)

CONTENTS

SI No	DESCRIPTION	Chapter
Volume-IA	Part-I: Contract specific details	
1	Project Information	Chapter-I
2	Scope of Works	Chapter-II
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V
6	Time Schedule	Chapter-VI
7	Terms of Payment	Chapter-VII
8	Taxes and other Duties	Chapter-VIII
9	Material	Chapter-IX
10	Bill of Quantities and % Weightage of Individual Items	Chapter-X
11	Technical Specifications and Drawings	Chapter-XI

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: PROJECT INFORMATION

Sl. No.	Description	Details
1	Project Title	3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT
2	Customer	NLC India Limited
3	Location	The plant is proposed to be located near Kumbhari and Tareikela villages on south west of Brijraj Nagar town on Sambalpur Rourkela highway in Jharsuguda district and ash disposal area is located near Thelkolai village in Sambalpur district.
4	Nearest Airport	Bhubaneswar at a distance of 350 km and Raipur airport is at a distance of approx. 290 km.
5	Access By Road/Rail/Major Cities	<p>Sambalpur – Jharsuguda highway after crossing Bedhan River via state PWD road. Nearest town is Jharsuguda (approx. 11 km). Nearest Village is Kumbhari and Tareikela villages on south west of Brijraj Nagar town</p> <p>Nearest railway station at Jharsuguda on Howrah-Nagpur main (trunk) section is at a distance of 11 km.</p> <p>Nearest seaport are Paradeep (Approx. 450 km) and Kolkata (Approx. 550 km)</p> <p>State Capital is Bhubaneswar (350 km)</p>
6	Temperature	<p>Mean ambient temperature</p> <p>Maximum-33.1°C</p> <p>Minimum-20.7°C</p> <p>Average-27.5°C</p>
7	Seismic Zone	Zone-III as per IS- 1893 (latest edition)
8	Wind Speed	In accordance with IS-875 for a basic wind speed of 50 m/sec, up to a height of 10 meters above mean ground level.
1	INSTRUCTIONS TO BIDDERS	
1.1	The Bidder shall visit project site and acquire full knowledge and information about conditions prevailing at site and in & around the plant premises, together with site conditions, transportation routes, various distances, -all the statutory, obligatory, mandatory requirements of various authorities and all information that may be necessary for preparing the bid and entering into the Contract. All costs for and associated with site visits shall be borne by the bidder.	
1.2	Other contractors would be working in this area and their structures are to be protected. The material brought and stacked for construction should not make hindrance to other contractors.	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: PROJECT INFORMATION

1.3	The information given herein is for general guidance and shall not be contractually binding on BHEL/Owner. All relevant site data /information as may be necessary shall have to be obtained /collected by the Bidder.	
1.4	The contractor, in the event of this work awarded to him, shall establish an office at site and keep posted an authorized, responsible officer with valid Power of Attorney for the purpose of the contract. Any order or instructions of the 'Engineer' or his duly authorized representative, communicated to the contractor's representative at site office will be deemed to have been communicated to the contractor at his legal address.	
1.5	No claim will be entertained by BHEL on ground of lack of knowledge and the contractor's rates shall be deemed to have taken this into account.	
1.6	Bidders may fix up their site visit in consultation with below mentioned contact person:	
	Name:	Mr. Gopal Chety Sanket Kumar
	Designation:	Engineer
	Email:	gchsanket@bhel.in
	Ph no:	08880751977
	Name:	R.Swaminathan
	Designation:	Manager
	Email:	rswami@bhel.in
	Ph no:	9940356725

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORKS

2.0	<p>Broad Scope of Works:</p> <p>Design, Manufacturing, Supply, Receipt at Site, Erection, Painting, Finishing etc. and Handing over of Removable/Re-erectable type Pre-Engineered, Pre-fabricated Closed Steel Storage Sheds(6nos) with side racks for storage purpose, Store-In-Charge Room, Office-1, Office-2, Safety park-1 nos etc. including execution of civil works all complete as per drawings & technical specifications. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works</p>
	<p>There will be two separate packages awarded as separate contracts for the design, construction, erection & commissioning of immovable and movable material, as follows:</p> <p>1. PACKAGE A- IMMOVABLE PART IN DESIGN, CONSTRUCTION & DEVELOPMENT OF STEEL STORAGE SHEDS WITH SIDE RACKS, STORE-IN-CHARGE ROOM, OFFICE BUILDINGS & SAFETY PARK CIVIL WORKS FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT AS DESCRIBED AND SPECIFIED IN BOQ-CUM-RATE SCHEDULE - IMMOVABLE MATERIAL”.</p> <p>2. PACKAGE B - MOVABLE PART IN DESIGN, SUPPLY, CONSTRUCTION & DEVELOPMENT OF STEEL STORAGE SHEDS WITH SIDE RACKS, STORE-IN-CHARGE ROOM, OFFICE BUILDINGS & SAFETY PARK FOR 3 X 800 MW NLC TALABIRA THERMAL POWERPROJECT SPECIFIED IN BOQ-CUM-RATE SCHEDULE - MOVABLE MATERIAL”.</p> <p>The above two packages shall be awarded as a two separate contracts to one agency only. The scope hereunder is given applicable for both the packages. Bidder has to give lump sum price for both the packages as per price bid.</p>
	<p>The scope shall include but not limited to following major works:</p> <p>A. Design, Manufacturing, Supply, Receipt at Site, Erection, Painting etc. and Handing over of Removable/Re-erectable type Pre-Engineered, Pre-fabricated Steel Storage Sheds-6 Nos. 15M c/c X 60M c/c X 6.0 M with side racks for storage purpose etc. including execution of civil works. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works.</p> <p>B. Design, Manufacturing, Supply, Receipt at Site, Erection, etc. and Handing over of Removable/Re-erectable type Pre-Engineered, Pre-fabricated Steel Store in charge room-2 Nos. of 3 m X 3 m x 3 m inside closed shed including execution of civil works. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works</p> <p>C. Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Office buildings- 2 nos. (1 no office with area 788 sqm and 1 no office with area 400 sqm) including execution of civil works as per the technical specification. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works and workmanship for Civil construction.</p>

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORKS

	<p>D. Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Safety Park- 1 nos. approximate area 250 sqm at project Site including execution of civil works. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works and workmanship for Civil construction</p> <p>All above jobs shall be executed as per BHEL Engineer's instructions, drawings, detailed specifications and respective BOQ cum Rate Schedule.</p>
2.1	A. Design, Manufacturing, Supply, Receipt at Site, Erection, Painting etc. and Handing over of Removable/Re-erectable type Pre-Engineered, Pre-fabricated Steel Closed Storage Sheds-6 Nos. with side racks for storage purpose etc. including execution of civil foundation. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works
2.1.1	DESIGN CONSIDERATIONS FOR CLOSED STORAGE SHED
2.1.1.1	Size of Closed Shed – 15M c/c X 60M c/c X 6.0 M (approximate)
2.1.1.2	Clear Height of closed Shed (Between FFL & Bottom of truss/ Structural Member) – 6.0M
2.1.1.3	Columns shall be spanning – 6.0M c/c long span & 5.0M c/c short span.
2.1.1.4	All side cladding/ roof sheets shall be fitted in such a way that they can be removed at any point of time
2.1.1.5	20 gauge MS rolling shutters of size 5 m x 4.65 m (approx.) as per IS specifications, complete, mechanically operated from in and outside both as instructed by BHEL engineer including two coats of synthetic enamel paint of approved colour and quality over one coat of Zinc Chromate primer with locking arrangement. Suitable arrangement shall be made for easy operation of shutters (mechanical gear operated).
2.1.1.6	One man-entry gate to be provided on at one side of each shed (front entrance by the side of rolling shutter).
2.1.1.7	Closed Storage Sheds shall be designed as frame structure with Structural Columns, Trusses, Foundations and Plinth Beam for supporting self-loads, live loads, wind loads, seismic loads etc. Contractor shall carry out the designing work considering the nominal requirements as per latest IS Standard specifications.
2.1.2	CIVIL WORK DESIGN & EXECUTION All civil works shall be carried out as per latest IS codes, standard specification and approved drawings as per the instruction of Engineer In-charge.
2.1.3	Cleaning of work site The area shall be cleared out of all stumps, bushes, grasses, vegetation etc. with their roots, fences, logs, rubbish, water, slush etc. All debris from the above operation shall be removed from the site at location decided by BHEL Engineer.
2.1.4	Leveling and Grading
2.1.4.1	The area (If required) has to be levelled with excavated earth/ approved good quality soil. Bidders to locate and arrange for borrow earth and to include all formalities like royalty, seigniorage charges etc. in the rate to be quoted. The material shall be free from lumps and clods, roots and

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORKS

	vegetation, harmful salts and chemicals, organic materials, etc. The area shall be levelled and graded with proper slope as per the requirement of site to the satisfaction of the site engineer.
2.1.4.2	In few cases, the agency has to level the area with the approved excavated soil/earth available at site within the lead of 1km to 2km as per the instructions of BHEL engineer in charge.
2.1.5	Earthwork
2.1.5.1	Earth work excavation shall be done as per IS standards in all types of soil for foundations, trenches including the shoring, strutting, dewatering, filling around foundations and to grade, compaction of fills etc.
2.1.5.2	Excavated material shall not be deposited within 1.5 M from the top edge of the excavation or within distance equal to the depth of excavation, whichever is higher
2.1.5.3	If Contractor excavates beyond the specified depth, the over excavated portion shall be filled back only with 1:4:8 cement concrete and well compacted without any extra cost.
2.1.5.4	The excavated soil will be disposed off by using it for back filling or by either spreading at designated disposal area. All surplus materials from excavation shall be carried away from excavation side and dumped at dumping site as directed by BHEL Engineer.
2.1.5.5	The earth filling shall be carried out by cutting & removing by Mechanical means, transporting within Plant Building (or) from outside-borrowed earth, filling in layer, watering, compacting by Roller/Compactors to carry out construction works over the filling as per the direction of Engineer in charge.
2.1.6	Cement Concrete works
2.1.6.1	All the concrete works under the scope of Contract will be done in accordance with the Approved Drawings & relevant IS standards.
2.1.6.2	Grade of RCC shall be confirming 1:1.5:3 (M20) or Higher Grade & Reinforcement Steel shall be HYSD- TMT Steel bars of Grade Fe-415/500 from reputed manufacturer.
2.1.6.3	100 mm thick PCC (1:4:8) shall be provided below RCC Footing of Columns and Plinth beam base.
2.1.6.4	Flooring shall consist of concrete base of 100mm thick PCC 1:2:4 over a layer of 150mm thick sand filling.
2.1.6.5	Height of RCC Column foundation shall be + 0.60 m from above existing G.L. The Finished Floor Level (FFL) shall be minimum 600 mm up from the existing Ground Level (EGL).
2.1.6.7	RCC Ramp over a layer of 150mm thick sand filling & good earth filling beneath having slope 1:5 to be provided at the entrance of shed.
2.1.7	Other Civil Works
2.1.7.1	Brick cladding 230mm thick up to 0.900 m height shall be provided along periphery. Brick masonry shall be done by using best quality locally available Fly Ash Lime (FAL) bricks of standard size in Cement Mortar 1:6 plastering with CM 1:6 of min. 12mm thick.
2.1.7.2	All the exposed face of Masonry & concrete should be painted with cement paint.
2.1.7.3	Net SBC of soil may be considered as 10 MT/sqm for design of Civil foundations. Min. depth of foundation shall be 1.5 m below natural ground level. In case of filled up soil, design of foundation to be undertaken suited to the proposed location.
2.1.7.4	HDPE Rain Water Down Pipe shall be provided with suitable gutters all around.
2.1.8	STRUCTURAL STEEL WORK
2.1.8.1	Design of structural steel work shall be carried out as per latest IS codes, standard Specification and drawings. All materials for structural steel works have to be supplied by the contractor and necessary test certificates of the materials procured for this work must be submitted for scrutiny. All fabrication and erection of structures must be executed according to the specification and drawings. Erection of trusses is true to line and level and aligned properly, as per drawing and instruction of Engineer In-charge.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORKS

2.1.8.2	Structural/ steel members will have 1 coat of Zinc Chromate primer (surface preparation of the section as per the standards to suit the climatic conditions) followed by 2 coats of synthetic enamel paint, of approved make, color and quality. The roof truss must have bolted joints at crown and at both ends.
2.1.8.3	All accessories like G.I. bolts, EPDM washers and nuts complete required for the work must be from reputed manufacturer. All bolts, nuts (IS 4759) shall be galvanized (hot dip) min. 270gm/m ² . Galvanized spring/ plain washer shall be as per IS 1573.
2.1.8.4	Since these are detachable sheds & to be in repetitive use at other locations, proper marking (permanent) shall be made for identification to ease re-erection. The stores shed shall be so designed that it can be dismantled at any time and may be transported to be re-erected at other location.
2.1.9	Roofing and Side Cladding: Roof and Side Cladding with Galvalume Sheet confirming to ASTM A 792 of thickness 0.47mm with zinc coating not less than 150gm/Sq.m (both side mass) of 550Mpa (min) of approved make. Translucent (Poly Carbonate) sheet of approved make shall be provided for alternative bays on roofs (10% of the roof sheeting area). Both roof and side cladding are to be made "Water Tight ". Wind ties for protection against lifting of roof by wind etc. if any as per standard practice shall be provided by the contractor.
2.1.9.1	Galvalume sheet shall be of One sided colour sheet. The sheet shall be of Blue colour only. (Preferably Torres Blue).
2.1.9.2	BHEL Logo-1 no shall be painted in front of the entrance just above the rolling shutter.
2.1.10	MISCELLANEOUS WORKS
2.1.10.1	Steel louvered ventilators 900 mm (W) x 600 mm (H) – 20 nos. at a height of 4.5m from FFL shall be provided
2.1.10.2	Steel Door: - Pressed steel doors as per standard specification, relevant IS code and sizes shall be supplied along with frames and fixed with suitable hold fasts, fixtures and fittings.
2.1.10.3	Suitable long span shelf system shall be provided throughout the length of both opposite longitudinal spans of closed sheds. It should have two shelves with one shorter top & one wider middle rack at height of 600mm from floor adding to a total height of 1200mm. The shelves shall be design to with stand SKU loading (not less than 125 Kg/Sq.M) with suitable angle section. The width of top shelf shall be of 600mm & intermediate/middle shelf is 750mm.
2.1.10.4	Supplying and fixing of foundation bolts shall be in the scope of contractor
2.1.11	ELECTRICAL WORK
2.1.11.1	Supply & installation of electrical items are to be carried out strictly as per approved drawings and executed through licensed electricians.
2.1.11.2	Bidder to supply & install electrical items like Main switch (30A TPN), ELCB, wires, conduit, tees, bends, clamps, JBs, Switchboards, earthing wires etc. for 18 nos. Medium Bay LED luminaire preferably of 120 watts with fittings. The same will be as per BHEL site Engineer's approval. 2 nos. EXHAUST FAN of size 600mm of suitable capacity to be supplied and fitted at the gable ends.
2.1.11.3	Main wiring points - 2.5 Sq mm copper wire. Light, Fan & 5A points - 1.5 Sq mm copper wire. 15/20 A points - 2.5 Sq mm copper wire.
2.1.11.4	Outside the shed 1nos LED lamp of 120watts shall be provided at the entrance.
2.1.11.5	7 Nos. of 120 W LED Flood Lights light fitting to be provided. Flood light to be installed in each corner and center of each side of storage shed except at entrance.
2.1.11.6	Outdoor Light distribution Board for outside lights to be provided at outside of the shed.

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2.1.11.7	Electrical cables shall confirm to Finolex / Havells / Universal / Delton / Paramount and fixtures/fittings shall be of Havells / Crompton/ Bajaj / Philips or any other approved make.
2.1.12	B. Design, Manufacturing, Supply, Receipt at Site, Erection, etc. and Handing over of Removable/Re-erectable type Pre-Engineered, Pre-fabricated Steel Store in charge room of 3 m X 3 m x 3 m inside closed shed. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works
2.1.12.1	DESIGN CONSIDERATIONS FOR STORE IN CHARGE ROOM:-
2.1.12.2	Store in charge room shall be of 50 mm Thick PUF insulated sandwich panels. These panels are made out of 0.47mm thick colour coated G.I. Sheet as exterior on both sides with PU Foam of density 38 Kg/CuM and tensile strength of 4 Kg/Sq.CM inside, Compressive strength (10 % deformation) of 2.1 Kg/Sq.CM, Thermal conductivity at 10 Deg 0.02 W/M Deg k Temperature Range - 80 Deg C to + 100 Deg C The PU Foam thickness is 60 mm.
2.1.12.3	False ceiling shall be provided with sandwich panels of thickness 30mm thick.
2.1.12.4	1 no. table of 1200mm width X 600mm depth X 750mm height consisting 3 drawer unit left side and provision for CPU & keyboard (table in beige / black colour) made of wood, 1no. executive chair (Width - 70.0 Cm, Depth - 70 Cm, Height -84.0 Cm-96.5 Cm Seat Height - 46.5 - 59.0 Cm) & 3 nos visitor chairs (Width - 52.5 Cm, Depth - 61 Cm, Height -80 Cm-119.0 Cm Seat Height - 43.0 Cm)
2.1.12.5	1 no. file cabinet consisting 4 drawers of size 470mm width X 1320mm height X 620mm depth and 1 no. single side steel file/book rack consisting of 3 racks of size 900mm width X1850mm height X316mm depth and mobile unit containing of 3 drawers shall be provided.
2.1.12.6	Electrical: 4 nos. 22 Watt recessed LED light panel with reflector trims,2 nos. ceiling fan and 1 no of 1.5 Ton Inverter AC of copper coil type only with Stabiliser to be provided.
2.1.12.2	ELECTRICAL WORK:-
2.1.12.2.1	Supply & installation of electrical items are to be carried out strictly as per approved drawings and executed through licensed electricians.
2.1.12.2.2	Bidder to supply & install electrical items like Main switch (30A TPN), ELCB, wires, conduit, tees, bends, clamps, JB's, Switch boards, earthing wires etc. The same will be as per BHEL site Engineer's approval.
2.1.12.2.3	Main wiring points - 2.5 Sq mm copper wire. Light, Fan & 5A points - 1.5 Sq mm copper wire.15/20 A points - 2.5 Sq mm copper wire.
2.1.13	PAINTING SPECIFICATION:-
2.1.13.1	The quoted rate / price shall be inclusive of supply and application of painting of all the erected components as per instruction of BHEL Engineer.
2.1.13.2	In the case of steel fabricated items, raw steel after fabrication has to be cleaned and subsequent painting to be carried out.
2.1.13.3	All the exposed metal parts, wherever applicable after installation unless otherwise specified are to be first painted with at least one coat of suitable primer and required number of finish coats as specified by BHEL after thoroughly cleaning the dust, rust, scales, grease oil, and other foreign materials by wire brushing scrapping and chemical cleaning and the same being inspected and approved by BHEL engineers for painting. Afterwards the above parts shall be finished with as per the instructions of BHEL official

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2.1.13.4	Normally Paint shall be applied by brushing as per the instruction of BHEL Engineer. It shall be ensured that brush marks are minimum.
2.1.13.5	Paint used shall be stirred frequently to keep the pigment in suspension. Paint shall be of the ready mix type in original sealed containers as packed by the paint manufacturer. No thinners shall be permitted. Paint manufacturer's instructions shall be followed in method of application, handling, drying time etc.,
2.1.13.6	The scope of painting includes application of lettering the names of the systems, equipments, danger / warning signs and other data as required by BHEL within the quoted rate
2.1.13.7	The actual colour to be applied shall be approved by BHEL before starting of actual painting work
2.1.13.8	Primer & finish paint shall be of reputed paint supplier approved by BHEL site-in-charge. The quality of the finish paint shall be as per the standards of IS or equivalent as approved by BHEL. Before procurement of paint the contractor has to obtain the clearance from BHEL authorities.
2.1.13.9	No paint shall be applied when the surface temperature is above 55 deg. Centigrade or below 10 deg. Centigrade, and when the humidity is greater than 90% to cause condensation on the surface or frost / foggy weather.
2.1.13.10	Before commencement of final painting, contractor has to obtain written clearance from BHEL for effective completion of surface preparation.
2.1.13.11	Before applying the subsequent coats, the thickness of each coat shall be measured and recorded with BHEL
2.2	C. Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Office buildings- 2 nos. (1 no office with area 788 sqm and 1 no office with area 400 sqm) as per the technical specification. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works and workmanship for Civil construction
2.2.1	This specification covers Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works if any etc. and Handing over to site Removable / Re-erectable type, Pre-engineered, Pre-fabricated OFFICE BUILDING using PUF PANELS including Civil works, Electricals, Furniture, Sanitary, Internal / External Plumbing & Sewage connections etc. all complete as per the technical specification
2.2.2	The detail scope of work is as follows:
	Design of prefabricated office buildings - 2 Site Offices of approx. area 788 sqm and 400 sqm as per the attached indicative layout, technical specifications and site conditions. Bidder to prepare following drawings required for the office building. <ul style="list-style-type: none"> • Super structure drawing for Office building/Toilet block • Civil foundation for Office building /Toilet block • Structural and Civil foundation for water tank structure • Septic tank layout/details
2.2.3	Supply and erection of Office using PUF PANELS panels as per specification.
2.2.4	Supply and Erection of Toilet Blocks as per Office layout (Conference Hall toilet, Site-in charge Toilet, Gents common Toilet & ladies common Toilet) along with fittings as per approved drawing.

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2.2.5	Supply and installation of all electrical items, electrical wiring, LAN wiring etc. all complete
2.2.6	Supply and installation of all furniture as per the list provided in the specification
2.2.7	Supply and installation of all sanitary items including all plumbing, piping inter connections and piping up to BHEL water inlet point all complete.
2.2.8	Supply and installation of PVC water tank and support structures.
2.2.9	Supply and fixing of tiling in the office area and toilet blocks, as specified.
2.2.10	Finishing works of office and handing over of the office to the site in charge.
2.2.11	Construction of Foundation for office building, PCC flooring, septic tank and foundation for water tank are all included in the scope of the bidder.
2.2.12	SIZE: Office building -1 : 65.7 M x 12 M x 3 M- Centre to Centre distance shall be considered Office building -2 : 40 M x 10 M x 3 M- Centre to Centre distance shall be considered
2.2.13	CLEAR HEIGHT: Between FFL & Bottom of truss (if any)/ Structural Member (if any) – 3.0 M
2.2.14	COLUMN SPACING: 3.0 M (recommended) on both longer & shorter side C/c. However suitable spacing can be provided as per design.
2.2.15	CIVIL WORK SPECIFICATIONS:- Design of civil works shall be carried out as per latest IS codes, standard specification and drawings as per the instruction of Engineer In-charge
2.2.15.1	Grade of RCC shall be 1:1.5:3 (M20) or Higher Grade for RCC Footings, pedestals, columns & Reinforcement Steel shall be HYSD- TMT Steel bars of Grade Fe-415/500.
2.2.15.2	100 mm thick PCC (1:4:8) shall be provided for following: <ol style="list-style-type: none"> 1. Below RCC Footing of Columns. 2. Plinth Beam Base. 3. Internal Wall Foundations. 4. In the Base of Soak Pit Slab.
2.2.15.3	200 mm thick PCC (1:4:8) shall be provided for the base of septic tank.
2.2.15.4	Brick masonry shall be done by using best quality locally available Fly Ash bricks of standard size. Minimum strength of the bricks should not be less than 75 KG/SqCm. Other quality requirement shall be in line with the relevant IS Code. One-brick thick & Half-brick thick brickwork shall be constructed as specified, in Cement Mortar 1:6 & 1:4 respectively and plastering with CM1:6 of min. 12mm thick including linking, plumbing, levelling, pacing, joints, curing etc. Including all materials, tools & plants and labour complete at all level/elevation.
2.2.15.5	All the exposed face of Masonry & concrete to be painted with cement paint.
2.2.15.6	Net Safe Bearing Capacity of soil to be considered as 10 MT/sqm for design of Civil foundations. Minimum depth of founding level below natural ground level shall be 1.5m.
2.2.15.7	RCC Stair to be provided at the entrance of the office. HDPE Rain Water Down Pipe shall be provided with suitable gutters all around
2.2.15.8	Indicative general layout drawings for both the offices are provided with this tender only for bidder's reference
2.2.16	FRAME STRUCTURE: Office shall be designed as frame structure with Structural Columns, Trusses, Foundations and Plinth Beam for supporting self-loads, live-loads, wind loads, seismic loads etc. Contractor shall carry out the designing work considering the nominal requirements as

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	per IS Standard specifications and detailed design drawings along with detail calculations shall be submitted to BHEL for approval before start of work. Drawings provided herein are tentative only for tendering purpose only, works shall be carried out as per the detail drawings to be prepared by contractor and approved from BHEL
2.2.17	MAIN STRUCTURE & WALLS:
	The main structural walls shall be made out of PUF Panel with color coated GI sheet of 0.5 mm thickness on Inner and Outer Side and 60 mm thick PUF of 38 Kg /m3 sandwiched between the sheets.
2.2.17.1	The fixture should be joined together by tongue and groove method to ensure 100% leak proof. The base frame for PUF panels shall be fabricated with ISMC 75x40x3mm or as per approved design; MS “T” welded for securing panels. The above panels with base frame shall be grouted to the Plinth / Floor by means of expansion fasteners. To maintain the aesthetic look of office, PUF Panels should be flushed with Inner face of columns and columns shall be covered with the color coated GI sheet. The entrance will be provided of approx. size minimum 4m X 3m.
2.2.17.2	The entrance will be provided with 2 nos. / 1 nos. –portico as per layout, should have an aesthetic look of size min 4mX 3m. The outer framing column will be covered with polymeric sleeve for protecting from weather corrosion and inner columns end will be covered with similar polymeric sleeve matching with the interior complete. (However, the final design is under bidder's scope suiting to the respective site criteria).
2.2.18	ROOF: Roof truss should be made up of anti- corrosive / enamel painted (as per IS:2932) 40mm square tubular section designed to suit roof structure with 0.47mm thick pre-coated profiled GI (i.e., PPGI) roof sheet fixed with fasteners/self-tapping screws including ridge covers, flashing, gutters, rainwater down pipes / spouts etc. all complete.
2.2.19	FALSE CEILING: False ceiling shall be provided to entire office area including corridors, toilet block etc. Frame works made of anti-corrosive/enamel painted GI structural members i.e., Tees, Angles, Channels etc. to form a grid pattern, the frame work shall be suspended from the Roof Trusses with the help of level adjusting hangers. False ceiling shall be done with 250 x 6mm thick polymeric panels and these panels are joined together by tongue and groove using self-tapping screws. Cut-outs should be made wherever necessary for fixing of electrical fittings.
2.2.20	PART CABINS AND WORKSTATIONS:
2.2.20.1	Double side partition for cubicles/work stations, part cabins of required height made up of powder coated aluminium frame of size 25mm x 50mm and double side panelling with laminated particle board (12 mm thick) upto desk level (2'5" height) and Pin up board with fabric upholstery (1'8" height), these panels are joined together by tongue and groove using self-tapping screws, necessary fittings, fixture, neoprene gasket, beading etc. complete..
2.2.20.2	Partition shall be of full height for all HOD cabins, IT room, Finance cabin, UCM room, Site In charge room, Waiting room, Conference room. Rest all area, shall be half partition
2.2.21	DOORS & WINDOWS Internal doors Polymeric with half panelled smog glass. All external doors with moulded FRP door. All doors to be provided with suitable hydraulic door closures and round door knob of approved manufacturer. Windows shall be providing with aluminum type grill and sunshade. Number of windows and doors are indicative only However suitable no. of Windows/doors shall be provided for enough ventilation & natural light on due consultation with BHEL engineer-in-charge. Venetian blinds and sun control film to provide for all the windows. The colour of the venetian blinds is to be decided by Engineer in charge

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2.2.22	<p>FLOORING Office flooring shall consist of all around RCC plinth beam of section 230 x 300 mm over 230mm thick & 300 mm high brick work, with cement mortar 1:6. Floor Level shall be raised by filling the Earth / Sand in Layers not more than 150 mm. Concrete base of 100mm thick PCC 1:2:4 over 150mm thick sand filling shall be provided below finish floor. Finish flooring above PCC shall be - Tiles laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including pointing the joints with white cement and matching pigment etc. all complete. The Finished Floor Level (FFL) shall be minimum 400 mm up from the Natural Ground Level (NGL).</p> <p>100 mm thick PCC (1:3:6) shall be provided in the width of approx. 750 mm around the perimeter of the office building for Plinth Protection as per standard specifications and as directed by BHEL Engineer.</p>
2.2.22.1	<p>TILING:- Site office - Vitrified floor tiles of matt finish of minimum thickness of 8mm of 1st quality conforming to IS: 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown of size 600mm x600 mm.</p> <p>Toilets - Providing antiskid vitrified tile flooring for Toilet and passage of size of min- 6mm thickness of 1st quality conforming to IS:15622 of any leading brand in colours such as White, Ivory, Grey, Fume Red Brown of size 300x300 mm.</p>
2.2.23	<p>MODULAR FURNISHINGS: Required Numbers for the below mentioned furniture shall be as per enclosed drawing layout and as per price bid.</p>
2.2.23.1	<p>SITE IN CHARGE ROOM:</p> <ol style="list-style-type: none"> 1. Maestro type table for Site in-charge including fixed side return table, mobile pedestal 2. Site in charge Chair 3. Visitor Chair 4. Three Seater Sofa
2.2.23.2	<p>CONFERENCE HALL:</p> <ol style="list-style-type: none"> 1. U-shape Conference Table. 2. Chairs for executives for conference hall 3. Chairs for Senior executive
2.2.24	<p>MODULAR OFFICE TYPE CUBICLE, supporting pedestal, Keyboard tray, CPU trolley, 1 No. white board and 1 No. pin up board fixed to panel on each seat of a cubicle etc. 4 Nos. power socket to be fixed on the cubicle such that each seat will contain a power socket.</p>
2.2.24.1	Table / Desk for HOD's including fixed side return desk
2.2.24.2	Table / Desk for Finance Room / Pantry room /accounts including mobile pedestals
2.2.24.3	4 seaters cubical with mobile pedestals
2.2.24.4	2 seaters cubical with mobile pedestals
2.2.24.5	1 seater cubical with mobile pedestals
2.2.24.6	Part cabins

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2.2.25	CABINETS for files of push-pull type in steel including channels for smooth mounting, end stoppers, label holder, proper locking arrangement etc. as per drawing. 1 No Push and Pull Type filing Optimizer to be provided.
2.2.26	Following chairs are to be supplied: <ol style="list-style-type: none"> 1. Chairs for senior executives 2. Chairs for executives 3. Chairs for visitors 4. Three seater sofa in waiting room 5. Single Seater Sofa in waiting room 6. Chairs for visitors in waiting room
2.2.27	TOILET BLOCK: Construction of Toilet Blocks including supply and installation of all materials as specified below in the technical
2.2.27.1	TOILET FOR SITE IN CHARGE ROOM: 1 no. Toilet with 1 EWC with Tap and health faucet, 1 Wash Basin with required Towel rod, soap dispenser, Coat Hook, Paper Holder, Glazed mirror etc. all complete.
2.2.27.2	TOILET FOR CONFERENCE ROOM: 1 no. Toilet with 1 EWC with Tap and health faucet, 1-urinal, 1 Wash basin with required Towel rod, soap dispenser, Coat Hook, Glazed mirror etc. all complete
2.2.27.3	TOILET FOR UCM ROOM: 1 no. Toilet with 1 EWC with Tap and health faucet, 1 Wash Basin with required Towel rod, soap dispenser, Coat Hook, Paper Holder, Glazed mirror etc. all complete.
2.2.27.4	TOILET BLOCK: A separate toilet Block shall consist of 2 zones separated by partition wall.
2.2.27.4.1	The first zone shall consist of 4 urinals with half partition, 2 EWC with Tap and health faucet, 1 IWC with Tap and health faucet, 1 Bathroom with tap and hand shower, 2 Wash basin with required Towel rod, soap dispenser, Glazed mirror etc. all complete
2.2.27.4.2	The second zone to be used as Ladies Washroom shall consist of 1 EWC with tap and health faucet, 1 Bathroom with tap and hand shower, 1 Wash Basin with required Towel rod, soap dispenser, Glazed mirror etc. all complete.
2.2.27.4.3	All EWC in toilets shall be provided with PVC louvered exhaust fan ventilators as per approved drawings. Urinals should be of Magnum type.
2.2.27.4.4	All toilets shall have flushing System including total required plumbing, water inter connections all complete.
2.2.27.4.5	All toilets should contain Bottle trap, Coat Hook, Towel Rail, Soap Tray, Brass Bib Cocks, Stop Cocks, Gate Valves etc. all complete
2.2.28	PANTRY: Pantry shall be provided with a SS kitchen Sink with drain boar (size: 510X1040 with min bowl depth 200 mm) including stop cocks, pillar taps, waste water pipe, necessary fittings and connections etc. all complete and a Granite working platform of min. 18 mm thick Black Granite Stone laid over angle support structures monolithic with outer frame structure at a specified height as per approved drawings and as directed by BHEL Engineer
2.2.29	WATER SUPPLY: A separate structure shall be provided with steel sections to support 3 nos. 2000 litre water tank for 788 sqm area office and 2 nos. 2000 litre water tank for 400 sqm area office at a minimum

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	height of 4m. The structure shall be designed with steel as per standard IS specification to withstand the water tank load and wind load in full & the legs of structure shall be suitably anchored to the ground. Supply and Fixing of Water Tank as approved by BHEL Engineer including inlet connection to Water Tank from the Existing nearby water supply line and further Distribution of water from the Water Tank to the Office Toilets, Pantry etc. using the GI / PVC Pipes of approved specifications and make, laying on surface/ recessed is also included in contractor's scope. Bidder to supply ½ HP pump to store water in Overhead tank.																				
2.2.30	SEWAGE / WATER SUPPLY CONNECTIONS: Sanitary fitting (EWCs, washbasins, urinals etc.) along with sewage connections shall be provided with septic tank and soak pit. All internal and external plumbing (from water tank to distribution system like toilet and pantry) including providing and fixing necessary GI / PVC Pipe, SW Pipe, stop cocks, bib cocks, full way valves, Gully Traps, Nahni Traps, water faucet etc. shall be provided as per approved drawings and as directed by BHEL Engineer																				
2.2.31	ELECTRICAL WORKS: Bidder to supply & install the below mentioned electrical items including supply & laying of cabling etc., all complete. Lighting system shall be designed to meet minimum 400Lux of modular type suitable for False ceilings including supply and installation of all necessary cabling etc. all complete. Also, the bidder should take care of aesthetics and energy conservation. A detailed schematic drawing with BOM (brands/makes) of the electrical fittings shall be submitted to BHEL for approval.																				
2.2.32	Required Quantities for the below mentioned electrical items shall be as per the approved drawing. The below list is indicative only. Type of fitting shall be decided in due consultation with engineer-in -charge.																				
	<table> <tr> <td>1</td><td>Supply and fixing of following Light fitting & exhaust fans of reputed make as approved BHEL engineer</td></tr> <tr> <td>2</td><td>220V, 36W, 2'x2' ceiling mounted recessed type LED luminaire</td></tr> <tr> <td>3</td><td>220V, 15W ceiling mounted recessed type LED luminaire</td></tr> <tr> <td>4</td><td>PL Lamp</td></tr> <tr> <td>5</td><td>LED decorative wash basin light</td></tr> <tr> <td>6</td><td>70 w LED flood light luminaire</td></tr> <tr> <td>7</td><td>200 mm sweep exhaust fans</td></tr> <tr> <td>8</td><td>Wiring: Supply and laying of following wiring as per the approved drawings as per the instructions of Engineer in charge. Bidder to note that wiring for lights, fans, sockets, AC points are equally distributed in all three phases. Each phase wiring circuits in one PVC pipe and same will be 50-60% occupation of wires. Clubbing of two phases in PVC conduit are not permitted.</td></tr> <tr> <td>8 (a)</td><td>Supply and wiring of light, fan points , 5A plug points using Modular Anchor Roma switches , sockets, switch boxes,1.5 sq.mm copper wire for all phase , neutral and earth , PVC pipes, bend , tee ,clams etc. All electrical circuit are limited to 800 w or 10 points maximum.</td></tr> <tr> <td>8(b)</td><td>Supply and wiring of 15A plug points using Modular Anchor Roma switches , sockets, switch boxes,2.5 sq.mm copper wire for phase , neutral and 1.5 sq.mm</td></tr> </table>	1	Supply and fixing of following Light fitting & exhaust fans of reputed make as approved BHEL engineer	2	220V, 36W, 2'x2' ceiling mounted recessed type LED luminaire	3	220V, 15W ceiling mounted recessed type LED luminaire	4	PL Lamp	5	LED decorative wash basin light	6	70 w LED flood light luminaire	7	200 mm sweep exhaust fans	8	Wiring: Supply and laying of following wiring as per the approved drawings as per the instructions of Engineer in charge. Bidder to note that wiring for lights, fans, sockets, AC points are equally distributed in all three phases. Each phase wiring circuits in one PVC pipe and same will be 50-60% occupation of wires. Clubbing of two phases in PVC conduit are not permitted.	8 (a)	Supply and wiring of light, fan points , 5A plug points using Modular Anchor Roma switches , sockets, switch boxes,1.5 sq.mm copper wire for all phase , neutral and earth , PVC pipes, bend , tee ,clams etc. All electrical circuit are limited to 800 w or 10 points maximum.	8(b)	Supply and wiring of 15A plug points using Modular Anchor Roma switches , sockets, switch boxes,2.5 sq.mm copper wire for phase , neutral and 1.5 sq.mm
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8(b)	Supply and wiring of 15A plug points using Modular Anchor Roma switches , sockets, switch boxes,2.5 sq.mm copper wire for phase , neutral and 1.5 sq.mm																				

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		copper wire for earth , PVC pipes, bend , tee ,clams etc. 15 a points are individually wired from PDB
	8(c)	Supply and wiring of AC points using 4.0 sq.mm copper wire for phase, neutral and 2.5 sq.mm copper wire for earth, PVC pipes, bend, tee, clams etc. AC points are individually wired from AC distribution board
	9	Supply and fixing of 20A modular AC metal clad box plug and sockets with 20A SP MCB of Branded make
	10	Supply and fixing of metal clad double door type 7 segment distribution board of 40A TPN MCB as incoming with 3 nos. 40A DP30ma ELCB/ RCCB and 18 nos. 10A MCB are out going with internal wiring and neutral links of branded make MDS, LEGRAND, STANDARD and HAVELLS only (For lights , fans)
	11	Supply and fixing of metal clad double door type 7 segment distribution board of 63A TPN MCB as incoming with 3 nos. 63A DP30ma ELCB/ RCCB and 18 nos. 16A MCB are out going with internal wiring and neutral links of branded make MDS, LEGRAND, STANDARD and HAVELLS only (For 5A , 15 A sockets)
	12	Supply and fixing of metal clad double door type 7 segment distribution board of 100A TPN MCB as incoming with 3 nos. 100ADP 30ma ELCB/ RCCB and 18 nos. 20A MCB are out going with internal wiring and neutral links of branded make MDS, LEGRAND STANDARD and HAVELLS only (For AC circuits)
	13	Supply and fixing 250A TPN 4 pole Metal clad Change over switch with enclosure along with 300A TPN copper busbar panel with three indication lamps for R Y B on indication of reputed make with internal wiring 2 runs of 50 sq.mm flexible copper wire complete
	14	supply and wiring of following flexible copper wire in a suitable PVC conduit from busbar panel to LDB and PDBs
	14 (a)	10 sq.mm copper wire for LDBs
	14 (b)	16 Sq.mm copper wire for PDB for Plug points
	14 (c)	25 sq.mm copper wire for AC PDBS
	15	Supply and fixing of 100 width cable tray for laying of conduits from Main distribution board
	16	Supply and fixing of 50width cable tray for laying of conduits for sub circuit wiring
	17	Supply and Erection of 3M long 50mm dia. 3.6 mm thick medium class GI funnel type earth electrode with filling of bentonite earthing powder as per standard, four side brick work chamber with cement plastering and removable type RCC/ cast iron cover plate. scope includes supply of required bentonite earthing powder, cement , brick, sand, RCC/cast iron cover plate
	18	Supply fixing of 25X3 GI flat for mains double earthing and inter connection between earth pits
	19	Supply and fixing of 10 SWG copper wire for double earthing of LDB , PDB and AC DB
2.2.33	NETWORKING	
2.2.33.1	Supply, Fixing and commissioning of networking works required for modular office all complete as per specification & approved drawing.	
2.2.33.2	A detailed schematic drawing with BOM of the networking shall be submitted to BHEL for approval before execution.	

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2.2.33.3	Required Numbers for the below mentioned items shall be as per the approved drawing .
2.2.33.4	<p>Tentative list of items is furnished below:</p> <ol style="list-style-type: none"> 1. 9U Wall mountable rack with 5 Amps Horizontal Power strip 2. 24 Port Loaded Patch Panel with 1 U Horizontal Cable Manager 3. Telephone Junction boxes (MDF) Krone type with lock & key 10 pair krone strip 4. 50 pair raiser cable connect EPABX 5. Implementation and Erection of LAN system equipment such as Jack/patch Cord. Etc. including I/O and Cat6 cable 6. Erection of Voice line system equipment such as I/O and 2pair Telephone cable
2.2.33.5	Detailed Network diagram showing the termination points along with test report to be submitted after execution/ implementation of networking.
2.2.34	<p>AIR CONDITIONING:</p> <p>Inverter type Split Air-conditioner with copper coil only shall be provided with a minimum capacity of 1.5 Ton and above for every 120 Sq. ft area with complete installation including ancillary works, voltage stabilizer, testing and commissioning as per manufacturers guidelines and specification.</p>
2.2.35	<p>Tentative AC requirements are mentioned below:</p> <p>1.5 Tonne AC of minimum 3-star rating with stabilizer 2 Tonnes AC minimum 3 star rating with stabilizer 1 Tonne AC of minimum 3-star rating with stabilizer</p>
2.3	D. Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Safety Park- 1 nos. approximate area 250 sqm at project Site including supply and installation of vertigo test structure. This also includes guarantee for 12 months of operations for the design performance, materials supplied & erection works and workmanship for Civil construction
2.3.1	This specification covers Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works if any etc. and Handing over to site Removable / Re-erectable type, Pre-engineered, Pre-fabricated building using PUF PANELS including Civil works, Electricals, Sanitary, Internal / External Plumbing & Sewage connections etc. all complete as per the technical specification
2.3.2	The detail scope of work is as follows:.
2.3.3	<p>Design of prefabricated Safety park building as per the attached indicative layout, technical specifications and site conditions. Bidder to prepare following drawings required for the Safety park.</p> <ol style="list-style-type: none"> 1. Super structure drawings 2. Civil foundation drawing
2.3.4	Supply and erection of Safety park using PUF PANELS panels as per specification.
2.3.5	Supply and installation of all electrical items, electrical wiring, LAN wiring etc. all complete

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2.3.6	Supply and installation of all sanitary items including all plumbing, piping inter connections and piping up to BHEL water inlet point all complete.
2.3.7	Supply and installation of PVC water tank and support structures as per site requirement
2.3.8	Supply and fixing of tiling in the building, as specified
2.3.9	Supply and Installation of Vertigo Test Structure of Safety park and Finishing works of the building and handing over to the site in charge.
2.3.10	The scope also includes guarantee for 1 year for the design, performance, materials supplied & erected by him and workmanship for Civil construction & erection works covered under the scope of the contract.
2.3.11	Construction of Foundation, PCC flooring and foundation for water tank are all included in the scope of the bidder.
2.3.12	SIZE: 32.5 M x 7.75 M x 3 M- Centre to Centre distance shall be considered
2.3.13	CLEAR HEIGHT: Between FFL & Bottom of truss (if any)/ Structural Member (if any) – 3.0 M
2.3.14	COLUMN SPACING: 3.0 M (recommended) on both longer & shorter side C/c. However suitable spacing can be provided as per design.
2.3.15	CIVIL WORK SPECIFICATIONS: Design of civil works shall be carried out as per latest IS codes, standard specification and drawings as per the instruction of Engineer In-charge
2.3.15.1	Grade of RCC shall be 1:1.5:3 (M20) or Higher Grade for RCC Footings, pedestals, columns & Reinforcement Steel shall be HYSD- TMT Steel bars of Grade Fe-415/500.
2.3.15.2	100 mm thick PCC (1:4:8) shall be provided for following: 1. Below RCC Footing of Columns. 2. Plinth Beam Base. 3. Internal Wall Foundations.
2.3.15.3	Brick masonry shall be done by using best quality locally available Fly Ash Lime bricks of standard size. Minimum strength of the bricks should not be less than 75 KG/SqCm. Other quality requirement shall be in line with the relevant IS Code. One-brick thick & Half-brick thick brickwork shall be constructed as specified, in Cement Mortar 1:6 & 1:4 respectively and plastering with CM1:6 of min. 12mm thick including linking, plumbing, levelling, pacing, joints, curing etc. Including all materials, tools & plants and labour complete at all level/elevation.
2.3.15.4	All the exposed face of Masonry & concrete to be painted with cement paint.
2.3.15.5	Net Safe Bearing Capacity of soil to be considered as 10 MT/sqm for design of Civil foundations. Minimum depth of founding level below natural ground level shall be 1.5m
2.3.15.6	HDPE Rain Water Down Pipe shall be provided with suitable gutters all around
2.3.15.7	Indicative general layout drawing is provided with this tender only for bidder's reference.
2.3.16	FRAME STRUCTURE: Safety park shall be designed as frame structure with Structural Columns, Trusses, Foundations and Plinth Beam for supporting self-loads, live-loads, wind loads, seismic loads etc. Contractor shall carry out the designing work considering the nominal requirements as per IS Standard specifications and detailed design drawings along with detail calculations shall be submitted to BHEL for approval before start of work. Drawings provided herein are tentative only for tendering purpose only, works shall be carried out as per the detail drawings to be prepared by contractor and approved from BHEL.
2.3.17	MAIN STRUCTURE & WALLS:

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2.3.17.1	<p>The main structural walls shall be made out of PUF Panel with color coated GI sheet of 0.5 mm thickness on Inner and Outer Side and 60 mm thick PUF of 38 Kg /m3 sandwiched between the sheets.</p> <p>The fixture should be joined together by tongue and groove method to ensure 100% leak proof. The base frame for PUF panels shall be fabricated with ISMC 75x40x3mm or as per approved design; MS “T” welded for securing panels. The above panels with base frame shall be grouted to the Plinth / Floor by means of expansion fasteners. To maintain the aesthetic look of office, PUF Panels should be flushed with Inner face of columns and columns shall be covered with the color coated GI sheet. The entrance will be provided with 1no-portico made up of PUF Panels, of approx. size minimum 4m X 3m.</p>
2.3.17.2	<p>2 m wide verandah covered with roof sheet to be provided at the building front side along the entire length. RCC Stair to be provided at the entrance.</p>
2.3.17.3	<p>The outer framing column will be covered with polymeric sleeve for protecting from weather corrosion and inner columns end will be covered with similar polymeric sleeve matching with the interior complete. (However, the final design is under bidder’s scope suiting to the respective site criteria).</p>
2.3.18	<p>ROOF: Roof truss should be made up of anti- corrosive / enamel painted (as per IS:2932) 40mm square tubular section designed to suit roof structure with 0.47mm thick pre-coated profiled GI (i.e., PPGI) roof sheet fixed with fasteners/self-tapping screws including ridge covers, flashing, gutters, rainwater down pipes / spouts etc. all complete.</p>
2.3.19	<p>FALSE CEILING: False ceiling shall be provided to entire Safety park area including corridors, toilet block etc. Frame works made of anti-corrosive/enamel painted GI structural members i.e., Tees, Angles, Channels etc. to form a grid pattern, the frame work shall be suspended from the Roof Trusses with the help of level adjusting hangers. False ceiling shall be done with 250 x 6mm thick polymeric panels and these panels are joined together by tongue and groove using self-tapping screws. Cut-outs should be made wherever necessary for fixing of electrical fittings</p>
2.3.20	<p>DOORS & WINDOWS Internal doors Polymeric with half panelled smog glass. All external doors with moulded FRP door. All doors to be provided with suitable hydraulic door closures and round doorknob of approved manufacturer. Windows shall be providing with aluminium type grill and sunshade. Number of windows and doors are indicative only However suitable no. of Windows/doors shall be provided for enough ventilation & natural light on due consultation with BHEL engineer-in-charge. Venetian blinds and sun control film to provide for all the windows. The colour of the venetian blinds is to be decided by Engineer in charge</p>
2.3.21	<p>FLOORING Flooring shall consist of all around RCC plinth beam of section 230 x 300 mm over 230mm thick & 300 mm high brick work, with cement mortar 1:6. Floor Level shall be raised by filling the Earth / Sand in Layers not more than 150 mm. Concrete base of 100mm thick PCC 1:2:4 over 150mm thick sand filling shall be provided below finish floor. Finish flooring above PCC shall be - Tiles laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) including pointing the joints with white cement and matching pigment etc. all complete. The Finished Floor Level (FFL) shall be minimum 400 mm up from the Natural Ground Level (NGL). 100 mm thick PCC (1:3:6) shall be provided in the width of approx.</p>

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2.3.22	<p>TILING: Safety Park - Vitrified floor tiles of matt finish of minimum thickness of 8mm of 1st quality conforming to IS: 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown of size 600mm x600 mm. Toilet - Providing antiskid vitrified tile flooring for Toilet and passage of size of min- 6mm thickness of 1st quality conforming to IS:15622 of any leading brand in colours such as White, Ivory, Grey, Fume Red Brown of size 300x300 mm.</p>
2.3.23	<p>TOILET AREA: Bidder shall supply and install following of all materials as specified below for the toilet area -</p>
2.3.23.1	<p>2 EWC with Tap and health faucet, 2 Wash Basin with required Towel rod, soap dispenser, Glazed mirror etc. all complete.</p>
2.3.23.2	<p>All EWC in toilets shall be provided with PVC louvered exhaust fan ventilators as per approved drawings.</p>
2.3.23.3	<p>Toilets shall have flushing System including total required plumbing, water inter connections all complete.</p>
2.3.23.4	<p>Toilets should contain Bottle trap, Coat Hook, Towel Rail, Soap Tray, Brass Bib Cocks, Stop Cocks, Gate Valves etc. all complete</p>
2.3.23.5	<p>1 wash basin with required Towel rod, soap dispenser, Glazed mirror etc. shall be provided for the medical room.</p>
2.3.24	<p>PANTRY: Pantry shall be provided with a SS kitchen Sink with drain boar (size: 510X1040 with min bowl depth 200 mm) including stop cocks, pillar taps, waste water pipe, necessary fittings and connections etc. all complete and a Granite working platform of min. 18 mm thick Black Granite Stone laid over angle support structures monolithic with outer frame structure at a specified height as per approved drawings and as directed by BHEL Engineer.</p>
2.3.25	<p>WATER SUPPLY: A separate structure shall be provided with steel sections to support 1 no. 2000 litre water tank at a minimum height of 4m. The structure shall be designed with steel as per standard IS specification to withstand the water tank load and wind load in full & the legs of structure shall be suitably anchored to the ground. Supply and Fixing of Water Tank as approved by BHEL Engineer including inlet connection to Water Tank from the Existing nearby water supply line and further Distribution of water from the Water Tank to the Toilets, Pantry etc. using the GI / PVC Pipes of approved specifications and make, laying on surface/ recessed is also included in contractor's scope. Bidder to supply ½ HP pump to store water in Overhead tank.</p> <p>SEWAGE / WATER SUPPLY CONNECTIONS: Sanitary fitting (EWCs, washbasins etc.) along with sewage connections shall be provided. All internal and external plumbing (from water tank to distribution system like toilet and pantry) including providing and fixing necessary GI / PVC Pipe, SW Pipe, stop cocks, bib cocks, full way valves, Gully Traps, Nahni Traps, water faucet etc. shall be provided as per approved drawings and as directed by BHEL Engineer.</p>
2.3.26	<p>ELECTRICAL WORKS: Bidder to supply & install the below mentioned electrical items including supply & laying of cabling etc., all complete. Lighting system shall be designed to meet minimum 400Lux of modular type suitable for False ceilings including supply and installation of all necessary cabling etc. all complete. Also, the bidder should take care of aesthetics and energy conservation.</p>

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<p>A detailed schematic drawing with BOM (brands/makes) of the electrical fittings shall be submitted to BHEL for approval.</p> <p>Required Quantities for the below mentioned electrical items shall be as per the approved drawing.</p> <p>The below list is indicative only. Type of fitting shall be decided in due consultation with engineer-in -charge.</p>		
1	Supply and fixing of following Light fitting & exhaust fans of reputed make as approved BHEL engineer	
1.1	220V, 36W, 2'x2' ceiling mounted recessed type LED luminaire	
1.2	220V, 15W ceiling mounted recessed type LED luminaire	
1.3	PL Lamp	
1.4	LED decorative wash basin light	
1.5	70 w LED flood light luminaire	
1.6	200 mm sweep exhaust fans	
2	Wiring: Supply and laying of following wiring as per the approved drawings as per the instructions of Engineer in charge. Bidder to note that wiring for lights, fans, sockets , AC points are equally distributed in all three phases. Each phase wiring circuits in one PVC pipe and same will be 50-60% occupation of wires. Clubbing of two phases in PVC conduit are not permitted.	
2.1	Supply and wiring of light, fan points , 5A plug points using Modular Anchor Roma switches , sockets, switch boxes,1.5 sq.mm copper wire for all phase , neutral and earth , PVC pipes, bend , tee ,clams etc. All electrical circuit are limited to 800 w or 10 points maximum.	
2.2	Supply and wiring of 15A plug points using Modular Anchor Roma switches , sockets, switch boxes,2.5 sq.mm copper wire for phase , neutral and 1.5 sq.mm copper wire for earth , PVC pipes, bend , tee ,clams etc. 15 a points are individually wired from PDB	
2.3	Supply and wiring of AC points using 4.0 sq.mm copper wire for phase, neutral and 2.5 sq.mm copper wire for earth, PVC pipes, bend, tee, clams etc. AC points are individually wired from AC distribution board	
3	Supply and fixing of 20A modular AC metal clad box plug and sockets with 20A SP MCB of Branded make	
4	Supply and fixing of metal clad double door type 7 segment distribution board of 40A TPN MCB as incoming with 3 nos. 40A DP30ma ELCB/ RCCB and 18 nos. 10A MCB are out going with internal wiring and neutral links of branded make MDS, LEGRAND, STANDARD and HAVELLS only (For lights , fans)	
5	Supply and fixing of metal clad double door type 7 segment distribution board of 63A TPN MCB as incoming with 3 nos. 63A DP30ma ELCB/ RCCB and 18 nos. 16A MCB are out going with internal wiring and neutral links of branded make MDS, LEGRAND, STANDARD and HAVELLS only (For 5A , 15 A sockets)	
6	Supply and fixing of metal clad double door type 7 segment distribution board of 100A TPN MCB as incoming with 3 nos. 100ADP 30ma ELCB/ RCCB and 18 nos. 20A MCB are out going with internal wiring and neutral links of branded make MDS, LEGRAND STANDARD and HAVELLS only (For AC circuits)	

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	7	Supply and fixing 250A TPN 4 pole Metal clad Change over switch with enclosure along with 300A TPN copper Busbar panel with three indication lamps for R Y B on indication of reputed make with internal wiring 2 runs of 50 sq.mm flexible copper wire complete
	8	supply and wiring of following flexible copper wire in a suitable PVC conduit from busbar panel to LDB and PDBs
	8.1	10 sq.mm copper wire for LDBs
	8.2	16 Sq.mm copper wire for PDB for Plug points
	8.3	25 sq.mm copper wire for AC PDBS
	9	Supply and fixing of 100 width cable tray for laying of conduits from Main distribution board
	10	Supply and fixing of 50width cable tray for laying of conduits for sub circuit wiring
	11	Supply and Erection of 3M long 50mm dia 3.6 mm thick medium class GI funnel type earth electrode with filling of bentonite earthing powder as per standard, four side brick work chamber with cement plastering and removable type RCC/ cast iron cover plate. scope includes supply of required bentonite earthing powder, cement , brick, sand, RCC/cast iron cover plate
	12	Supply fixing of 25X3 GI flat for mains double earthing and inter connection between earth pits
	13	Supply and fixing of 10 SWG copper wire for double earthing of LDB , PDB and AC DB
2.3.27	NETWORKING	
2.3.27.1	Supply, Fixing and commissioning of networking works required for Safety park all complete as per specification & approved drawing	
2.3.27.2	A detailed schematic drawing with BOM of the networking shall be submitted to BHEL for approval before execution	
2.3.27.3	Required Numbers for the below mentioned items shall be as per the approved drawing and as per price bid.	
2.3.27.4	<p>Tentative list of items is furnished below:</p> <ol style="list-style-type: none"> 1. 9U Wall mountable rack with 5 Amps Horizontal Power strip 2. 24 Port Loaded Patch Panel with 1 U Horizontal Cable Manager 3. Telephone Junction boxes (MDF) Krone type with lock & key 4. 10 pair krone strip 5. 50 pair raiser cable connect EPABX 6. Implementation and Erection of LAN system equipment such as Jack/patch Cord. Etc. including I/O and Cat6 cable 7. Erection of Voice line system equipment such as I/O and 2pair Telephone cable 	
2.3.27.5	Detailed Network diagram showing the termination points along with test report to be submitted after execution/ implementation of networking.	
2.3.28	<p>AIR CONDITIONING:</p> <p>Inverter type Split Air-conditioner with copper coil only shall be provided with a minimum capacity of 1.5 Ton and above for every 120 Sq. ft area with complete installation including</p>	

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	<p>ancillary works, voltage stabilizer, testing and commissioning as per manufacturers guidelines and specification.</p> <p>Tentative AC requirements are mentioned below:</p> <p>1 Tonne AC of minimum 3-star rating with stabilizer 1.5 Tonne AC of minimum 3-star rating with stabilizer 2 Tonnes AC minimum 3 star rating with stabilizer</p>
2.4	<p>Specification of Office Furniture (Table and Chairs)</p> <p>(Note: The specifications are for indicative purpose only)</p>
	<p>1. Executive Table</p> <p>i) Requirement: Tables are required for executive officers to do official work for long hours.</p> <p>ii) Type: Main desk.</p> <p>iii) Technical Specification</p> <p>a. Overall Size (Minimum): 1200mm width X 600mm depth X 750mm height</p> <p>b. Table Top: The table top shall be made of pre-laminated particle board of min. 18mm thickness with PVC lipping.</p> <p>c. Side panels: The side panels shall be made of pre-laminated twin board of min. 18mm thickness with PVC lipping.</p> <p>d. Modesty panel : The side panels shall be made of pre-laminated twin board of min. 18mm thickness with PVC lipping.</p> <p>e. Relevant Standard: Pre laminated boards conforming to Gr-II Type-II as per IS-3087-2005/ IS-12823-1990.</p> <p>iv) Certification: The supplier must be ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 Certified. The supplier must be BIFMA approved.</p>
	<p>2. Executive Chair</p> <p>i) Requirement : Chairs are required for sitting of executive officers to do official work manually as well as in the computer for long hours.</p> <p>ii) Type : High Back Revolving Chair</p>

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	<p>iii) Technical Specification</p> <ul style="list-style-type: none"> a. Overall Size(Minimum) : 70cm (Width) x 70cm(Depth) x 90-102.5cm (Height) b. Seat Height:44-56.5 Cm c. Seat Size (Minimum) 49cm (W) x 44cm(D) d. Material : The seat and back are made up of hot-pressed plywood of thickness (minimum) 1.2cm, upholstered with fabric upholstery covers and moulded Polyurethane foam. The back foam is designed with contoured lumbar support for extra comfort. The seat has extra thick foam on front edge to give comfort to popliteal area. e. Centre Tilt Mechanism : The chair should have adjustable tilt mechanism with single point locking. Ideal for those movements like recline or rest. f. Moulded Foam : The seat and back rest are to be made up of moulded POLYURETHANE FOAM of the right density and thickness, which do not only gives a soft feeling but also provides firm support to ensure hours of comfortable sitting. g. Swivel Mechanism : The chair should have swivel mechanism which allows for complete 360 degree lateral movement. h. Pneumatic Height Adjustment : The chair should have pneumatic lever for adjusting height of the chair. It also provides a cushioning effect to prevent sudden jerks to body while sitting. i. Relevant Standard : All material should be used of relevant ISI specification. <p>Certification: The supplier must be ISO 9001:2008, ISO 14001•2004, OHSAS 18001:2007 Certified. The supplier must be BIFMA approved</p>
	<p>3. Visitor Chair</p> <ul style="list-style-type: none"> i) Requirement : Chairs are required for sitting of visitors. ii) Type : Low/Mid Back Fix Base Chair iii) Technical Specification <ul style="list-style-type: none"> a. Overall Size (Minimum) : 55cm (Width) x 60cm(Depth) x 80.5-119cm (Height) b. Seat Height: 43 cm c. Seat Size (Minimum) 49cm (W) x 44cm(D) d. Material : The seat and back are made up of hot-pressed plywood 1.2 cm thick, upholstered with fabric upholstery covers and moulded Polyurethane foam. The

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	<p>back foam is designed with contoured lumbar support for extra comfort. The seat has extra thick foam on front edge to give comfort to popliteal area.</p> <p>e. Arm rests : The arm rests shall be in single piece made of black integral skin polyurethane reinforced with MS insert. The armrests shall be whether resistant.</p> <p>f. Frame : The tube frame shall be of cantilever type and made of MS tube with powder coated.</p> <p>g. Moulded Foam : The seat and back rest are to be made up of moulded POLYURETHANE FOAM of the right density and thickness, which do not only gives a soft feeling but also provides firm support to ensure hours of comfortable sitting.</p> <p>h. Relevant Standard: All material should be used of relevant ISI specification.</p> <p>iv) Certification: The supplier must be ISO 9001:2008, ISO 14001:2004, OHSAS 18001:2007 Certified. The supplier must be BIFMA approved.</p>
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2.4.1 Tentative List of items required in Offices and Safety park are as per the table below:-

Description	Qty.	Office 788 sqm	Office 400 sqm	Safety park
Maestro type table for Site in-charge including fixed side return table, mobile pedestal etc.,	Nos	1		
U-shape Conference hall table	Nos			
size 23 feet x 6 feet approx. of seating capacity minimum 32 nos	Nos		2	
size 21 feet x 6 feet approx. of seating capacity minimum 20 nos	Nos	1		
size 7 feet x 3 feet approx. Of seating capacity minimum 6 nos	Nos	1		
Modular Office type Cubicle including part cabins-1200mm X 750mm with supporting pedestal, Keyboard tray, CPU trolley , 1 No. white board and 1 No. pin up board fixed to panel on each seat of a cubicle etc. 4 Nos. power socket to be fixed on the cubicle such that each seat will contain a power socket.etc., as per enclosed office layout drawing.				
4-Seater modular cubicle	Nos	19	8	
2-Seater modular cubicle	Nos	4	5	
1-Seater modular cubicle	Nos	0	3	

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	File cabinet - push and pull type as per the specification of make godrej/ equivalent (OUTER SIZE 1.8M X 3.6M in extended condition)	L.S	1	1	
	Chair for Site Incharge (1 in site incharge cabin and 1 in conference hall)	Nos	2	1	
	Chairs for senior executives	Nos	13	7	
	Chairs for executives and conf. hall	Nos	106	83	
	Chairs for visitors	Nos	43	14	
	Three seater sofa	Nos	2	1	
	Single seater sofa	Nos	2	0	
	Centre table	Nos	2	1	
	Table / Desk for HOD's including fixed side return desk	Nos	13	7	
	Table / Desk for Conference hall / Finance Room / Pantry room including mobile pedestals	Nos	6	0	
	Supply and installation of Split Air-conditioner(Inverter type copper coil only) of approved brand for every 120Sq.ft area with complete installation including ancillary works, testing and commissioning as per manufacturers guidelines and specification.				
	1 tonne-split type with min 3 star rating with stabilizer	Nos	12	5	2
	1.5 tonne-split type with min 3 star rating with stabilizer	Nos	2	3	2
	2 tonne-split type with min 3 star rating with stabilizer	Nos	13	9	4
2.5	OTHER GENERAL SCOPE OF WORK				
2.5.1	Unloading, receipt, verifying, stacking, stock keeping, shifting, preservation & handling of supplied material using bidders own T & P and manpower.				
2.5.2	Entire civil work like Excavation, Foundation, Toilet, Plumbing, Sewerage System etc. required.				
2.5.3	Installation of temporary structures (Scaffolding, Access ladders, Working Platforms etc.), Complete with all labour, electrodes and other consumables.				
2.5.4	All works shall be carried out in proper workmen like manner. Items of works covered by the following specification shall be carried out as per the best practices and according to the direction of the Engineer In-charge / BHEL, Site Engineer and to his satisfaction. Unless otherwise specified in this section or in the description of item, the cost of stage of works mentioned here under shall be deemed to have been included in the rates of items provided in the schedule.				
2.5.6	Installation of all items required to complete the scope of work in totality.				
2.6	SALIENT TECHNICAL REQUIREMENTS				
2.6.1	All design documents and drawings of Storage Sheds & Store-In-Charge Room & Offices shall have to be vetted by civil design agency of repute/ Civil Engineering department of reputed				

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	engineering college like IITs/NITs. Further, all drawings shall be submitted to BHEL for final approval. All execution shall be as per the drawings approved by BHEL
2.6.2	All designs have to be carried out as per relevant IS codes / Technical specifications of BHEL
2.6.3	Since these are detachable sheds intended for repetitive use at other locations, proper marking (permanent) shall be made for identification to ease re-erection. The shed shall be so designed that it can be dismantled at any time and may be transported to be re-erected at other location.
2.6.4	Bidder has to submit 3-4 samples of all bought out items. Approval must be taken from engineer in charge for all bought out items.
2.6.5	The bidder should submit a guarantee for 1 year of operations for the materials supplied and erected by him and for workmanship for the erection works.
2.6.6	The roof truss should have bolted joints at crown /at both ends. Both roof and side cladding is to be made "Water Tight".
2.6.7	Design of civil foundation work is within the scope of the bidder and shall be carried out as per latest IS codes, standard specification. The detailed foundations drawings (which includes footings, flooring, water tank foundation), must be submitted to BHEL within 15 days of issue of LOA for approval
2.6.8	Agency shall submit two sets of proposed drawings of Safety Park along with foundation, Electrical & Networking, Plumbing & other fittings etc., to BHEL within fifteen days from the issue of LOA.
2.6.9	Two sets of final drawings, along with one soft copy shall be handed over to BHEL immediately after finalization of design and before commencement of work.
2.6.10	The materials and workmanship must be of good quality and accepted standards and specifications. The site Engineer reserves the right to reject any material not up to the specification.
2.6.11	After completion of work, the building and areas around it should be cleared of all rubbish, debris etc. and handed over in fit condition for occupation
2.6.7	<p>The layout, construction, architectural and finishing details for work to be executed under this contract shall be as per following reference drawings enclosed with this tender document:</p> <ol style="list-style-type: none"> 1. Closed Storage Shed (Reference Drawing no:BHEL/PSSR/PROJ/CVL/PEB/005 to BHEL/PSSR/PROJ/CVL/PEB/005 /007 Rev0 2. Layout of office building -1 & 2 3. Typical Layout of Safety Park 4. Specification for push pull type optimizer 5. Furniture (Drawing reference no:-BHEL:PSSR:PMX:OFC:008 Rev0 6. Vertigo Test Structure Specification (ANNEXURE-01)
2.6.8	<p>List of drawings to be submitted for approval shall be finalized on the start of contract.</p> <p>Following major drawings are included in contractor's scope:</p> <ol style="list-style-type: none"> a) Schematic sketch of Closed Sheds, Offices & Safety park. b) Design drawings with detailed calculations for Closed Sheds, office building, Safety Park and c) Detailed Furniture Layout drawings. d) Electrical Wiring & Fixtures detailed layout drawings. e) Water Supply/Plumbing, Sanitary arrangements and layout drawings. f) Water Tank Support Structure design and detail drawings.

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2.7	PREFERABLE MAKE/BRANDS FOR VARIOUS ITEMS TO BE INSTALLED:	
	Given below is only an indicative list, new supplies shall be purchased form any leading manufacturer, confirming to IS standards after due approval from Engineer-In-Charge.	
	Cladding/Roof Sheeting	JSW/ Tata Blue scope/SAIL/RINL
	Modular Furniture / Furnishing items	WIPRO/GODREJ/ ADILITE / DELITE / DURIAN / GEEKEN or any other recognized brand
	Toilet ware/ Sanitary items	HINDWARE / PARRYWARE/PRAYAG / CERA / VARMORA
	Vitrified Floor Tiles	HINDWARE/ KAJARIA JOHNSON/ ASIAN/ GRANITO
	LT ACB	L&T/ TM/ SIEMENS /GEC ALSTOM/ GE CONTROLS / SCHNEIDER / C&S / SPACEAGE / HYUNDAI/ ABB/ HAVELLS
	Fuse Switch Unit	ALSTOM / SIEMENS / L&T / CGL / STANDARDS / HAVELS / SCHNEIDER / C&S / GE POWER
	MCB	ALSTOM / SIEMENS / L&T / CGL / STANDARDS / HAVELLS / SCHNEIDER / C&S / GE POWER/ ABB
	MCCB	STANDARD / MDS / INDO KOPP / C&S / SIEMENS / ABB/HAVELLS/ L&T
	HRC Fuses	STANDARD / MDS / INDO KOPP / C&S / SIEMENS / ABB/ HAVELLS/ L&T
	Control switches	SIEMENS / L & T / ALSTOM / S & S / STANDARD / INDO ASIAN / HAVELS / VERSATRIP / BUSMAN / GE POWER/ ABB
	Indicating lamps (LEDs)	SIEMENS / ALSTOM / L & T / KAYCEE/ SALZER
	Lighting Fittings	SIEMENS / L & T / ALSTOM / TM / BINAY / TECKNIC / VAISHNO/ RAAS/ RISHAB
	Switch Socket outlet	PHILIPS / BAJAJ / CROMPTON / CEMA / GE / MYSORE LAMPS or equivalent.
	Piano switch	ANCHOR / ELLORA / MAK ELECTRIC / ALSTOM/ LEGRAND
	LT Power & Control Cables	UNIVERSAL / NICCO / DELTON CABLES / FINOLEX / INDUSTRIAL CABLES / CMI / OMEGA / RADIANT CABLES / POLYCAB / KEI/GOVIND / BRIMSON / PREMIER / PARAMOUNT / PLAZA/ HAVELLS/ RR
	Terminal Blocks	ESSEN / CONNECT WELL / ELMEX / PHOENIX / WAGO
	Air Conditioner	Inverter type with Copper coil only LG/ BLUE STAR/ VOLTAS(MIN 3 STAR RATING)/SAMSUNG/HITACHI/O-GENERAL
2.8	SPECIFICATION FOR PUSH PULL TYPE OPTIMIZER (Note:-The specification is for indicative purpose only)	
2.8.1	Overall height of the cabinet from the ground	2080 mm
2.8.2	Width of the cabinet	915 mm

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2.8.3	Overall Depth of the cabinet	457 mm
2.8.4	Number of Bays	Single Bay
2.8.5	Type of Drive	Push Pull Type
2.8.6	Fix Single Cabinet Open At one side and closed on other side	1 Nos.
2.8.7	Movable Single Cabinet Open at One Side And Closed On other side	1 Nos.
2.8.8	Number of Movable Dual Cabinets Attached together From their Back Sides and Opened On the other sides	4 Nos.
2.8.9	Door Provided with each cabinet	No
2.8.10	Provision of door locking	Yes
2.8.11	Type of Door Locking	Recessed Die Cast Handle Cum lock gining 3 way locking through a lever & shooting bolts
2.8.12	MS Sheet Thickness of the cabinet Body	0.8 mm
2.8.13	MS Sheet thickness of the Shelf Panels	0.8 mm
2.8.14	MS Sheet Thickness of the Door Panels	0.8 mm
2.8.15	Number of adjustable shelves in each Cabinet	4 Shelves/5 Compartments
2.8.16	MS Sheet Thickness of undercarriage	3.15 mm
2.8.17	Type of Locking System of the Movable File Storage System	Central Locking System for locking the complete unit and manually operated locking for each movable cabinet
2.8.18	Load Carrying Capacity of Each Shelf	80 Kg
2.8.19	Minimum Excess Rail Length In addition to filing cabinet Covering (For Aisle Working)	1200 mm
2.8.20	Paint	Powder Coating
2.8.21	Colour of paint	Bond White & Snowbell grey
2.9	OTHER IMPORTANT CONDITIONS	
2.9.1	Providing all incidental items not shown or specified but reasonably implied or necessary for the successful completion of the work in accordance with contract.	
2.9.2	The drawings enclosed with this tender are to provide information regarding the layout, construction specifications, type and extent of work involved. Detailed design and construction	

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Chapter – II: SCOPE OF WORKS

	drawings are to be prepared by the contractor based on the drawings and construction details provided in this specifications.
2.9.3	Further, this is to be noted that the drawings and the documents furnished along with this specification are the sole property of BHEL. It must not be used directly or indirectly in any way detrimental to the interest of the company.
2.9.4	Furnishing all labour, materials, supervision, construction plans, equipment, supplies, transport, to and fro the site, fuel, electricity, compressed air, water, transit and storage insurance and all other incidental items and temporary works not shown on specified but reasonably implied or necessary for the proper completion, maintenance and handling over the works in accordance with the stipulations laid down in the contract documents and additional stipulations as may be provide by the engineer during the course of works.
2.9.5	The area of work shall be cleared of all vegetation, rubbish and other objectionable matter and materials. No separate payment for these operations shall be made for such works.
2.9.6	All the works areas shall be adequately flood lighted to the satisfaction of the Engineer-in-Charge when the work is in progress during the night shifts.
2.9.7	The contractor shall be required to provide all facilities for inspection of works at no extra cost to BHEL. Any defect in quality of work or deviations from drawings / specifications pointed out during such inspection shall be made good by the contractor in the same way as if pointed out by the BHEL Engineer, without any cost implication to BHEL.
2.9.8	Giving all notices, paying all fees, taxes etc., in accordance with the general conditions of contract, that is required for all works including temporary works.
2.9.9	Carrying out topographic survey of the entire and establish levels and coordinates at suitable intervals from existing grid levels and coordinates furnished by the owner established bench marks, setting out the locations and levels of proposed structures, constructions and marking of reference pillars and other identification works etc., The contractor shall provide the BHEL such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used.
2.9.10	Arranging for joint checking (with BHEL / BHEL's Customer / Consultant) of all site construction activities. Preparation of joint protocols for each & every activity and maintaining quality records for audit/inspection.
2.10	Field Quality Assurance: The contractor shall be responsible for day-to-day quality checks for civil, structural and architectural works including concrete and other building materials. Contractor shall provide assistance to the BHEL Site Engineer for quality checks and if any specific test required for material supplied by the contractor or during the execution works of civil, contractor shall be responsible for arranging such test with approved third party laboratory.
2.10.1	Mix design for concrete grade M20 and above shall be carried out from NCCBM/IITs/NITs/other reputed laboratories approved by BHEL. Alternatively, contractor can also use the design mix of specified grade of concrete already approved from reputed institutes with the prior approval of BHEL Engineer.
2.10.2	Design mix concrete of grade M-20 may be used for RCC Structures. Nominal mix (volumetric) shall be allowed to use as per the guidelines of IS-456 (latest edition) with min. W/C ratio & cement content as per IS stipulation for moderate condition. Concrete shall be produced by concrete mixer machine & hand mix is generally not acceptable.
2.11	HEIRARCHY

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2.11.1	<p>In case of any conflict/deviations amongst various documents, the order of precedence shall be as follows:</p> <ol style="list-style-type: none">1. Items Description in BOQ Cum Rate Schedule2. Technical Conditions of Contract (TCC)3. IS Standards
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TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL (SCOPE MATRIX)

Sl. No.	Description	SCOPE		REMARKS
		BHEL	BIDDER	
3.1	Establishment:			
3.1.1	For Construction Purpose:			
a	Open space for office (as per availability within project premises)	Yes		Location will be finalized after joint survey with owner.
b	Open space for storage (as per availability within project premises)	Yes		Location will be finalized after joint survey with owner.
c	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
d	Bidder's all office equipments, office / store / canteen consumables		Yes	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc.		Yes	
f	Firefighting equipment like buckets, extinguishers etc.		Yes	
g	Fencing of storage area, office, canteen etc of the bidder		Yes	
3.1.2	For living purpose of the bidder:			
a	Open space for labour colony		Yes	Contractor has to make his own arrangements for shelter and transportation of labours as per requirement.
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2	Electricity:			
3.2.1	Electricity for construction purposes (for Site/Project works only) 3 Phase 415/440 V (Chargeable) within project premises			
a	Single point source (Chargeable)		Yes	Contractor should arrange for construction power through DG sets at his own cost.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	Electricity for office, stores, canteen etc. of the bidder (Chargeable) within project premises			
a	Single point source (Chargeable)		Yes	Contractor has to make his own arrangements
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors, labour Hutment etc.			Contractor has to make his own arrangements
a	Single point source		Yes	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Payment/Duties and deposits including statutory clearances if applicable		Yes	
3.3	Water Supply:			
3.3.1	For construction, bidder's office, stores, canteen purposes:			
a	Making the water available at single point		Yes	
b	Further distribution and treatment as per the requirement of work including supply of materials and execution		Yes	
3.3.2	Water supply for Living Purpose			Contractor has to make his own arrangement
a	Making the water available at single point		Yes	
b	Further distribution and treatment as per the requirement of work including supply of materials and execution		Yes	
3.4	Lighting			
a	For construction work (Supply and execution of the lighting work/ arrangements)		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL (SCOPE MATRIX)

	1. At office/storage area			
	2. At the preassembly area			
	3. At the construction site /area			
b	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5	Communication facilities for site operations of the bidder			
a	Telephone, internet, intranet, e-mail etc		Yes	
3.6	Demobilization of all the above facilities		Yes	
3.7	Erection Facilities			
3.7.1	Engineering works for construction:			
a	Providing the erection/constructions drawings for all the equipment / structures covered under this scope	Yes		
b	Drawings for construction methods	Yes	Yes	In consultation with BHEL
c	As-built drawings where ever deviations observed and executed and also based on the decisions taken at site		Yes	Changes are to be marked in drawing & handover to BHEL on completion of work.
d	Preparation of site erection schedules and other input requirements as per Form-14.	Yes	Yes	In consultation with BHEL
e	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL

3.8	Land/Open Space:-
3.8.1	Availability of land within plant boundary is very limited and the contractor has to plan and use the existing land considering the use of land by other Civil /Mechanical/ Electrical contractors and the storage of plant machineries and materials. The existing land shall be shared by all erections agencies. BHEL shall provide free of charge limited open space for office, storage shed and laydown area as and where made available by Customer. It is the responsibility of the contractor to construct sheds, office, develop storage area, provide all utilities and dismantle and clear the site after completion of work or as and when required, as a part of his scope of work.
3.9	Labour and Staff Colony: Following are in the Bidder's scope of work for labour & staff colony:

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL (SCOPE MATRIX)

3.9.1	Labour colony is to be developed by bidder for all the labourers required to be deployed for the works. All labour colony set-up is to be developed in compliance of statutory requirements. Alternatively, bidder can also arrange for labour accommodations meeting the statutory norms as well as the minimum facilities as per attached drawings.
3.9.2	Land for labor colony shall be arranged by Contractor at their own cost as per availability outside project area within 5Km, Necessary levelling/dressing of land shall be done by the contractor. All arrangement for electricity and drinking/service water to be arranged by the contractor within his quoted price.
3.9.3	Development of Bidder's temporary staff colony and labour colony having adequate no. of rest rooms along with toilets & fencing etc.
3.9.4	All Civil and Structural work associated with drinking and service water for Bidder's labour and other personnel at the work site/colony/offices including pump houses, pipes, overhead tank, tube wells etc.
3.9.5	Providing and maintaining facilities for safety, welfare, drinking water and sanitation, hygiene, biennial health check-up etc. for construction workers at their workplaces as well as at labour & staff colonies.
3.9.6	Development and maintenance of above facilities for construction workers deployed by the Contractor shall solely rest with the Contractor.
3.10	<p>Installation of necessary amenities- and temporary infrastructure- for construction activities at Project site locations-</p> <p>Following are the minimum amenities to be provided by the bidder within the quoted price including removal/disposal of the same in environment friendly manner after its intended use/completion of scope of work:</p> <ul style="list-style-type: none"> i. Labour rest sheds near work spot. ii. Canteen facility creation / arrangement. iii. Drinking water facility. iv. Labour Bio toilets near work spot in sufficient nos. with regular cleaning & maintenance arrangement. v. Labour colony should have all hygienic condition, dining hall, toilets, proper sewerage system, good drinking water arrangements. vi. Royalty challan and statutory documents shall be submitted along with RA Bills for processing of Bills.
3.11	Construction Power:
3.11.1	Construction power is to be arranged by contractor using DG sets, distribution of construction power shall also be arranged by the contractor at his own cost (including supply of necessary distribution boards, cables etc.) Contractor shall be responsible for fulfilment of all requirements including statutory requirements in this regard.
3.11.2	Contractor shall make necessary arrangements for onward distribution of construction power taking due care of surrounding construction activities like movement of cranes & vehicles, civil work, fabrication/construction/assembly/ erection etc. and safety of personnel. It may become necessary to relocate some of the installations to facilitate work by other agencies or by him.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL (SCOPE MATRIX)

3.11.3	Contractor shall deploy and install required cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act.
3.11.4	It shall be the responsibility of the Contractor to provide, maintain the complete installation on the load side of the supply with due regard to the safety requirements at site. All cabling and installations shall comply in all respects with the appropriate statutory requirements. The installation and maintenance of this shall be done by licensed and experienced electrician.
3.11.5	The contractor shall also take the approval/ permission of statutory authorities for his DG set installation. The Contractor has to make his own arrangement for the same as required to carry out the job under the scope of work within the quoted rate. Nothing extra shall be paid on this account of DG set up and running for construction and office maintenance etc.
3.11.6	The bidder will have to Procure & install General mobile illumination system during construction right from start of his work. This system will include temporary pole lighting, portable lighting towers with DG back up, within the quoted price. The illumination should be such that minimum illumination requirement as specified by Indian standards for general illumination is maintained.
3.12	Construction water:
3.12.1	Construction water shall be arranged by bidder. Bidder has to make arrangement of further distribution of water at his own cost. No extra payment shall be made under this account.
3.12.2	The Contractor should make arrangements for storage of sufficient quantity of water required for work. The agency should also construct sumps (if required) of suitable size for storage of construction water as per their requirement for use in mobile batching plant/ Concrete Mixture Machine and construction purposes.
3.12.3	Contractor to satisfy himself that the water drawn by him is fit for construction / consumption and adequately treat such water at his cost when it is not found fit for the said purposes.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: T&PS AND MMES TO BE DEPLOYED BY CONTRACTOR

4.0	Tools and Plants: Nos. of T&Ps to be deployed at site shall be decided w.r.t. monthly plan and review format (F-14) based on site requirement. Below given Nos. are tentative for planning purposes by the bidder.	
Sl. No.	Description of T&P	Tentative Quantity
4.1	For Civil Works	
4.1.1	Hydraulic Excavator /Poclain/JCB	1 Nos.
4.1.2	Mobile Batching Plant/Concrete Mixture Machine	1 nos.
4.1.3	Vibrators (electrical/diesel)	APR*
4.1.4	Reinforcement bending machine	1 nos.
4.1.5	Reinforcement cutting machine	APR*
4.1.6	Farana crane (Required Capacity) *Note- Hydra is not allowed at project site	1 Nos.
4.1.7	Self-priming Dewatering pump of various capacity (Diesel/Electric) From 2 HP to 15 HP	APR*
4.1.8	Curing / dewatering pump – 1.5 / 2 HP	APR*
4.1.9	De-watering pump (diesel operated) – 20 HP & 30 HP	APR*
4.1.10	Ply Shuttering board with adequate supporting structure – (Old steel shuttering plates will not be allowed).	APR*
4.1.11	MS Scaffolding Pipes.	APR*
4.1.12	Plate compactor	APR*
4.1.13	Earth Compactor- 3MT Capacity	1 Nos.
4.1.14	Total Station	1 Nos.
4.1.15	Auto level & staff	APR*
4.1.16	Man lift crane of Minimum 20m reach	1 Nos.
4.1.17	DG Set of 125 KVA Capacity	1 Nos
4.1.18	Construction Cable and Water Pipe Line	APR*
4.2	For Structural Steel Works	
4.2.1	Farana crane (Required Capacity) *Note- Hydra is not allowed at project site	1 Nos.
4.2.2	Torque Tightening Machine	APR*
	APR*- As per Requirement	
4.3	Measuring and Monitoring Equipment (MMEs): To be finalized as per site requirement.	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: T&PS AND MMES TO BE DEPLOYED BY CONTRACTOR

4.4	T&Ps shown in the above mentioned list is tentative requirement. However, mobilization schedule as mutually agreed at site for major T&Ps, have to be adhered to. Numbers/time of requirement will be reviewed from time to time at site and contractor will provide required T&Ps/equipment to ensure completion of entire work within schedule/target date of completion without any additional financial implication to BHEL. Contractor will give advance intimation & certification regarding capacity etc. prior to dispatch of heavy equipment. Also on completion of the respective activity, demobilization of T&Ps in total or in part can be done with the due approval of Engineer-In-Charge. Retaining of the T&Ps during the contract period will be mutually agreed in line with construction requirement.
4.5	The contractor shall arrange crane operator, diesel, petrol and other consumables including electrical / water / air connections required for the tools and plants, equipments etc. Preventive and routine maintenance of T & P are also to be arranged by the contractor at his cost without any delay. Required number of experienced mechanics and helpers for routine maintenance of the above T&Ps shall be provided by the contractor within his quoted rate.
4.6	The age of the cranes deployed by contractor should be within 15 years as on date of deployment. Contractor has to provide documentary proof for the age of the crane at the time of deployment to the BHEL Engineer.
4.7	Heavy equipment will be tracked with real-time position location for fleet management. Deployment vs planned reports shall be generated. Equipment condition monitoring data like service meter reading, operation maps, loading, fuel levels, operating information, idle time etc. shall be captured. This data shall be captured through integrated online project monitoring system. All T&Ps and Equipment deployed by contractor will also be covered/ monitored through this system. Accordingly, minimum 5 signals per equipment should be made available to provide the input to integrated online project monitoring system. Necessary software/ hardware for aforesaid system shall be provided by BHEL.
4.8	Other terms and conditions regarding T&Ps to be deployed by Contractor, shall be as per clause No. 4.2 of SCC.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– V: T&PS AND MMES TO BE PROVIDED BY BHEL

5	<p>LIST OF T&P TO BE PROVIDED BY BHEL FREE OF HIRE CHARGES ON SHARING BASIS:-</p> <p>BHEL shall not provide any T&Ps for this scope of work.</p> <p>All T&Ps required for handling of items / materials to be arranged by bidder.</p>
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TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VI: TIME SCHEDULE

6	Time Schedule and Mobilization:	
6.1	<p>Initial Mobilization and Time Schedule:</p> <p>After issue of LOA (through Fax/courier/email) the contractor shall report to the Construction Manager/Site In-Charge of BHEL at site within seven (07) days from date of LOA and submit detailed mobilization plan to start work within 15 days from date of LOA; unless instructed by BHEL to differ start of work in writing.</p> <p>The contractor has to subsequently augment his resources in such a manner that the entire works are completed within the contract period of 09 (Nine) Months from the date of start of work in a manner required by BHEL to match with the project schedule.</p> <p>Date of Start of work shall be considered as 15 days after date of LOA or as instructed by BHEL in writing.</p>	
6.2	<p>Schedule of Completion:</p> <p>The entire work under the scope of this contract shall be carried out in such a manner that the following listed major milestones are achieved as per completion schedule given against each activity & fronts released for erection by other agency.</p>	
Sl. No.	Activity	Schedule of completion from date of start of work
6.2.1	STORAGE SHED-1 &2	03 rd Month
6.2.2	STORAGE SHED-3 & 4	04 th Month
6.2.3	STORAGE SHED-5 &6 (M1)	05 th Month
6.2.4	OFFICE (400 SQM)	07 th Month
6.2.5	OFFICE (788 SQM)	08 th Month
6.2.6	SAFETY PARK (M2)	07 th Month
6.2.7	FINAL HANDING OVER OF ALL FACILITIES AND COMPLETE FINISHING	09 TH Month
6.3	The above schedule is only tentative. The above schedule shall be advanced, if there are requirements to advance the project schedule and the civil works in the scope of the contractor is to be advanced to meet the project requirement. No extra payment whatsoever shall be paid on this account.	
6.4	In order to meet the above schedule in general, and any other intermediate targets set, to meet customer/ project schedule requirements, Contractor shall arrange & augment all necessary resources from time to time on the instructions of BHEL Engineer.	
6.5	Intermediate milestones:	
6.5.1	Two Major Intermediate Milestones are identified as M1 and M2 hereunder:	
Milestones	Activity	Schedule of completion from start of work

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VI: TIME SCHEDULE

M1	STORAGE SHED-5 &6	05 th Month
M2	SAFETY PARK	07 th Month
6.6	<u>Provision of Penalty in case of slippage of Intermediate Milestones:</u> <u>In case of slippage of Two Major Intermediate Milestones, mentioned as M1 & M2 above, delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to F-14.</u>	
6.6.1	In case of slippage of these identified Intermediate Milestones, Delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones.	
6.6.2	<u>In case delay in achieving M1 Milestone is solely attributable to the contractor, 0.5% per week of executable contract value*, limited to maximum 2% of executable contract value, will be withheld.</u>	
6.6.3	In case delay in achieving M2 Milestone is solely attributable to the contractor, 0.5% per week of executable contract value*, limited to maximum 3% of executable contract value, will be withheld.	
6.6.4	Amount already withheld, if any against slippage of M1 milestone, shall be released only if there is no delay attributable to contractor in achievement of M2 Milestone.	
6.6.5	Amount required to be withheld on account of slippage of identified intermediate milestone(s) shall be withheld out of respective milestone payment (corresponding RA Bill) and balance amount (if any) shall be withheld @10% of RA Bill amount from subsequent RA bills.	
6.6.6	Final deduction towards LD (if applicable), on account of delay attributable to contractor shall be based on final delay analysis on completion/ closure of contract. Withheld amount, if any due to slippage of identified intermediate milestone(s) shall be adjusted against LD or released as the case may be.	
6.6.7	In case of termination of contract due to any reason attributable to contractor before completion of work, the amount already withheld against slippage of intermediate milestones shall not be released and be converted into recovery.	
6.7	Common activities shall be completed in Phase wise manner/ Instruction of Engineer within the Contractual time.	
6.8	Above milestone dates has to be completed in parallel.	
6.9	Bidders are requested to submit Resource deployment plan Area wise with detail program in line with above schedule in the form of Bar Chart/ MS project planer along with their offer.	
*	Executable Contract Value - Value of work for which inputs/ fronts were made available to contractor and were scheduled for execution till the date of achievement of that milestone.	
6.1	COMPLETION OF WORK AND COMMENCEMENT OF GUARANTEE PERIOD	
6.10.1	The works shall be completed to the entire satisfaction of the Engineer and in accordance with the completion schedule as specified in the Contract, and all unused stores and materials, tools, plant, equipment, temporary buildings, site office, labor hutments and other things shall be removed and the site and work cleared of rubbish and all waste materials and delivered up clean and tidy to the satisfaction of the Engineer at the Contractor's expenses.	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VI: TIME SCHEDULE

6.10.2	BHEL shall have power to take over from the Contractor from time to time such sections of the work as have been completed to the satisfaction of the Engineer. Such work however shall not be treated as have been completed until the remaining / pending works are executed to the satisfaction of Engineer.
6.10.3	The Engineer shall certify to the contractor the date on which the work is completed and the date thereof for commencement of Guarantee Period. Guarantee Period shall be as given in GCC.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VII: Terms of Payment

7	Terms of Payment:
7.1	<p>The contractor on certification of the engineer at site be entitled for payments of his running bills, which shall be subject to any deduction/retention specifically under clauses 2.22 of GCC and 10.0 of SCC.</p> <p><u>Broad Break-up of Payment:</u></p> <p>a) For Storage Shed respective payment shall be processed as per the following broad breakup-</p> <ol style="list-style-type: none"> 1. On Completion of Engineering Duly approved by BHEL - 5% 2. On Completion of Foundation Work -10% 3. On Completion of Supply & Receipt of Super Structure Material at site - 25% 4. On Completion of Erection of Super Structure & civil works – 30% 5. On Completion of Electrical Wiring, Fixtures– 20% 6. On Handing-over of Storage Shed in all respects- 10% <p>b) For Store-In-Charge Room payment shall be processed as per the following broad breakup-</p> <ol style="list-style-type: none"> 1. On Completion of Engineering Duly approved by BHEL - 5% 2. On Completion of Foundation Work -10% 3. On Completion of Supply & Receipt of Super Structure Material at site - 35% 4. On Completion of Erection of Super Structure– 30% 5. On Completion of Electrical Wiring & Fixtures – 10% 6. On Handing-over of closed sheds in all respects- 10% <p>c) For Offices respective payment shall be processed as per the following broad breakup-</p> <ol style="list-style-type: none"> 1. On Completion of Engineering Duly approved by BHEL - 5% 2. On Completion of Foundation Work -10% 3. On Completion of Supply & Receipt of Super Structure Material at site -25% 4. On Completion of Erection of Super Structure & civil works – 20% 5. On Completion of Supply & Receipt of part cabins & workstations & Furniture at site – 20% 6. On Completion of Electrical Wiring, Fixtures & Networking – 5% 7. On Completion of Plumbing & Other Misc. Finishing Works – 5% 8. On Handing-over of Office in all respects- 10% <p>d) For Safety Park respective payment shall be processed as per the following broad breakup-</p> <ol style="list-style-type: none"> 1. On Completion of Engineering Duly approved by BHEL - 5% 2. On Completion of Foundation Work -10% 3. On Completion of Supply & Receipt of Super Structure Material at site - 25% 4. On Completion of Erection of Super Structure & civil works – 20% 5. On Completion of Electrical Wiring, Fixtures & Networking – 15% 6. On Completion of Plumbing & Other Misc. Finishing Works – 15% 7. On Handing-over of Safety park in all respects- 10%

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VII: Terms of Payment

	After approval of final Engineering Drawing by BHEL, vendor to submit detailed Billing Break-Up of above along with Bill of Material (for the entire work) for BHEL's Approval. Based on approved billing break-up RA Bills shall be submitted by Bidder.
7.2	Progressive Payment/ Final Payment: The payments for works under the scope of this contract shall be as per clause no 2.6; 2.22; 2.23 of General Conditions of Contract and Volume-IB, Chapter-X of SCC.
7.2.1	<p><u>Documents required for RA Bill:</u></p> <p>GST Complied Invoice of the work done as per approved BBU. WAM -6 for RA Bill. Jointly signed Measurement sheet. Power of Attorney before submission of Bill. Validity of Bank Guarantees as applicable under the contract.</p> <p><u>HR/IR compliance documents:</u></p> <ol style="list-style-type: none"> Wages payment sheet as per applicable minimum wages. Proof of PF contribution submission. Proof of ESI/ WC contribution submission Proof of Bonus payment as per Bonus Act if applicable. Proof of EL payment if applicable. Any other statutory document if applicable.
7.2.2	<p><u>Documents required for Final Bill:</u></p> <p>The final bill is drawn as soon as the entire work is completed. From the final amount due, all amounts already claimed up to the previous running account bill will be deducted. It should be ensured that in the final bill the following additional particulars have been provided:</p> <ul style="list-style-type: none"> Final Bill in WAM-7 Format. 'No claim' certificate from the contractor. Clearance certificates where ever applicable viz. Clearance Certificates from Customer, various Statutory Authorities like Labour department, PF Authorities, Commercial Tax Department etc. Final Material re-conciliation statement duly approved by BHEL. Indemnity Bond as per prescribed format. Deviation statement showing the difference between the actuals and as per the contract. Final Delay Analysis.
7.3	<p><u>SECURED RECOVERABLE ADVANCES:</u></p> <p>Interest Free Secured Mobilization Advance as per GCC Clause No. 2.13.1 will be payable under exceptional circumstances on certification of BHEL Construction Manager at Site. Interest Free Mobilization Advance shall be disbursed in specifically mentioned stages of major resource mobilization as specified hereunder:</p>

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VII: Terms of Payment

- | | |
|--|--|
| | <ol style="list-style-type: none">1. For Mobilization of Excavators, Concrete mixtures, Reinforcement cutting, bending machines etc. - 2.0%2. For Mobilization of other required T & P and resources at site to start the work etc. – 1.5%3. For Installation and Erection of Site Infrastructure by contractor i.e. site office, stores etc. – 1.5% |
|--|--|

Notes:-

- | | |
|--|--|
| | <ol style="list-style-type: none">1. BHEL Site-CM shall be the deciding authority for assessing the admissibility of advance payment to contractor.2. In case contractor do not fulfil the agreed conditions of payment of 1st mobilization advance, BHEL Construction Manager will have the authority to not allow the 2nd mobilization advance to contractor. |
|--|--|

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VIII: Taxes and other Duties

8.0	TAXES & DUTIES
8.1	<p>The contractor shall pay all (save the specific exclusions as enumerated in this clause) taxes, fees, license, charges, deposits, duties, tools, royalty, commissions, other charges, etc. which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes/duties, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.</p> <p>However, provisions regarding GST on output supply (goods/service) and TDS/TCS as per Income Tax Act shall be as per following clauses.</p>
8.2	GST (Goods and Services Tax)
8.2.1	<p>GST as applicable on output supply (goods/services) are excluded from contractor's scope; therefore, contractor's price/rates shall be exclusive of GST. Reimbursement of GST is subject to compliance of following terms and conditions. BHEL shall have the right to deny payment of GST and to recover any loss to BHEL on account of tax, interest, penalty etc. for non-compliance of any of the following condition.</p>
8.2.2	<p>The admissibility of GST, taxes and duties referred in this chapter or elsewhere in the contract shall be limited to direct transactions between BHEL & its Contractor. BHEL shall not consider GST on any transaction other than the direct transaction between BHEL & its Contractor.</p> <p>For discharging GST liability, Package-A (Immoveable items) is to be treated as "Works Contract" and Package-B (Moveable items) is to be treated as "Contract for Supply of Goods". GST for Package-A is to be charged as per applicable rate under respective head of "Services" and GST for Package-B is to be charged as per applicable rate under respective head of "Goods" for "Composite supply of works contract as defined in clause 119 of section 2 of CGST Act"</p>
8.2.3	<p>Contractor shall obtain prior written consent of BHEL before billing the amount towards such taxes. Where the GST laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL shall have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.</p>
8.2.4	<p>Contractor has to submit GST registration certificate of the concerned state. Contractor also needs to ensure that the submitted GST registration certificate should be in active status during the entire contract period.</p>
8.2.5	<p>Contractor/Vendor has to issue Invoice/Debit Note/Credit Note indicating HSN/SAC code, Description, Value, Rate, applicable tax and other particulars in compliance with the provisions of relevant GST Act and Rules made thereunder.</p>
8.2.6	<p>Vendor has to submit GST compliant invoice within the due date of invoice as per GST Law. In case of delay, BHEL reserves the right of denial of GST payment if there occurs any hardship to BHEL in claiming the input thereof. In case of goods, vendor has to provide scan copy of invoice & GR/LR/RR to BHEL before movement of goods starts to enable BHEL to meet its GST related compliances. Special care should be taken in case of month end transactions.</p>
8.2.7	<p>Vendor has to ensure that invoice in respect of such services which have been provided/completed on or before end of the month should not bear the date later than last working day of the month in which services are performed.</p>

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VIII: Taxes and other Duties

8.2.8	<p>Subject to other provisions of the contract, GST amount claimed in the invoice shall be released on fulfilment of all the following conditions by the Contractor: -</p> <ol style="list-style-type: none">Supply of goods and/or services have been received by BHEL.Original Tax Invoice has been submitted to BHEL.Contractor/ Vendor has submitted all the documents required for processing of bill as per contract/ purchase order/ work order.In cases where e-invoicing provision is applicable, vendor/contractor is required to submit invoice in compliance with e-invoicing provisions of GST Act and Rules made thereunder.Contractor has filed all the relevant GST return (e.g. GSTR-1, GSTR-3B, etc.) pertaining to the invoice submitted and submit the proof of such return along with immediate subsequent invoice. In case of final invoice/ bill, contractor has to submit proof of such return within fifteen days from the due date of relevant return.Respective invoice has appeared in BHEL's GSTR - 2A for the month corresponding to the month of invoice and in GSTR-2B of the month in which such invoices has been reported by the contractor along with status of ITC availability as "YES" in GSTR-2B. Alternatively, BG of appropriate value may be furnished which shall be valid at least one month beyond the due date of confirmation of relevant payment of GST on GSTN portal or sufficient security is available to adjust the financial impact in case of any default by the contractor.Contractor has to submit an undertaking confirming the payment of all due GST in respect of invoices pertaining to BHEL.
8.2.9	<p>Any financial loss arises to BHEL on account of failure or delay in submission of any document as per contract/purchase order/work order at the time of submission of Tax invoice to BHEL, shall be deducted from contractor's bill or otherwise as deemed fit.</p>
8.2.10	<p>TDS as applicable under GST law shall be deducted from contractor's bill.</p>
8.2.11	<p>Contractor shall comply with the provisions of e-way bill wherever applicable. Further wherever provisions of GST Act permits, all the e-way bills , road permits etc. required for transportation of goods needs to be arranged by the contractor.</p>
8.2.12	<p>Contractor shall be solely responsible for discharging his GST liability according to the provisions of GST Law and BHEL will not entertain any claim of GST/interest/penalty or any other liability on account of failure of contractor in complying the provisions of GST Law or discharging the GST liability in a manner laid down thereunder.</p>
8.2.13	<p>In case declaration of any invoice is delayed by the vendor in his GST return or any invoice is subsequently amended/alterd/deleted on GSTN portal which results in any adverse financial implication on BHEL, the financial impact thereof including interest/penalty shall be recovered from the Contactor's due payment.</p>
8.2.14	<p>Any denial of input credit to BHEL or arising of any tax liability on BHEL due to non-compliance of GST Law by the Contractor in any manner, will be recovered along with liability on account of interest and penalty (if any) from the payments due to the Contactor.</p>
8.2.15	<p>In the event of any ambiguity in GST law with respect to availability of input credit of GST charged on the invoice raised by the contractor or with respect to any other matter having impact on BHEL, BHEL's decision shall be final and binding on the contractor.</p>

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VIII: Taxes and other Duties

8.2.16	<p><u>Variation in Taxes & Duties:</u></p> <p>Any upward variation in GST shall be considered for reimbursement provided supply of goods and services are made within schedule date stipulated in the contract or approved extended schedule for the reason solely attributable to BHEL. However downward variation shall be subject to adjustment as per actual GST applicability.</p> <p>In case the Government imposes any new levy/tax on the output service/goods after price bid opening, the same shall be reimbursed by BHEL at actual. The reimbursement under this clause is restricted to the direct transaction between BHEL and its contractor only and within the contractual delivery period only.</p> <p>In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer but before opening of the price Bid, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of price bid. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.</p>
8.3	<p><u>Income Tax:</u></p> <p>TDS/TCS as applicable under Income Tax Act, 1961 or rules made thereunder shall be deducted/collected from contractor's bill.</p>

8.4 BOCW Act & Cess Act

8.4.1 BOCW Cess is not to be borne by contractor. Refer Annexure-I for BOCW Act & Cess Act.

Annexure-I:	
Bidder may please note that the sub-contractor/bidder of BHEL engaging building or construction worker in connection with building or other construction work, are required to follow the procedures enumerated below:	
1.	It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.
2.	It shall be sole responsibility of the contractor engaging Building Workers in connection with the building or other construction works in the capacity of employer to apply and obtain registration certificate specifying the scope of work under the relevant provisions of the Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 from the appropriate Authorities.
3.	It shall be responsibility of the contractor to furnish a copy of such Registration Certificate within a period of one month from the date of commencement of Work.
4.	It is responsibility of the contractor to register under the Building and other Construction Workers' Welfare Cess Act, 1996 and deposit the required Cess for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 at such rate as the Central Government may, by notification in the Official Gazette, from time to time specify. However, before registering and deposit of Cess under the Building and other Construction Workers' Welfare Cess Act, 1996, the contractor will seek written prior approval from the Construction Manager.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VIII: Taxes and other Duties

5.	It shall be sole responsibility of the contractor as employer to get registered every Building Worker, who is between the age of 18 to 60 years of age and who has been engaged in any building or other construction work for not less than ninety days during the preceding twelve months as Beneficiary under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996.
6.	It shall be sole responsibility of the contractor as employer to maintain all the registers, records, notices and submit returns under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder.
7.	It shall be sole responsibility of the contractor as employer to provide notice of poisoning or occupation notifiable diseases, to report of accident and dangerous occurrences to the concerned authorities under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 and the rules made thereunder and to make payment of all statutory payments & compensation under the Employees' Compensation Act, 1923.
8.	It shall be the responsibility of the sub-contractor as employer to make payment/deposit of applicable cess amount on the extent of work involving building or construction workers engaged by the sub-contractor within a period of one month from the receipt of payment. It shall also be responsibility of the Contractor to furnish BHEL on monthly basis, Receipts/ Challans towards Deposit of the Cess under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder along with following statistics: (i) Number of Building Workers employed during preceding one month. (ii) Number of Building workers registered as Beneficiary during preceding one month. (iii) Disbursement of Wages made to the Building Workers for preceding wage month. (iv) Remittance of Contribution of Beneficiaries made during the preceding month
9.	BHEL shall reimburse the contractor the Cess amount deposited for the purposes of the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 under the Building and other Construction Workers' Welfare Cess Act, 1996 and the rules made thereunder. However, BHEL shall not reimburse the Fee paid towards the registration of establishment, fees paid towards registration of Beneficiaries and Contribution of Beneficiaries remitted.
10.	It shall be responsibility of the Building Worker engaged by the Contractor and registered as a beneficiary under the Building and other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996 to contribute to the Fund at such rate per mensem as may be specified by the State government by notification in the Official Gazette. Where such beneficiary authorizes the contractor being his employer to deduct his contribution from his monthly wages and to remit the same, the contractor shall remit such contribution to the Building and other construction Workers' Welfare Board in such manner as may be directed by the Board , within the fifteen days from such deduction.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter– VIII: Taxes and other Duties

11.	Bidders may please note that though the quoted price is exclusive of BOCW (which will be reimbursed by BHEL as per sub-clause 9 above) , however, If at any point of time during the contract period, non-compliance of the provisions of the Building and other Construction Workers’ (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers’ Welfare Cess Act, 1996 and the rules made thereunder is observed, BHEL reserves the right to deduct the applicable cess (1%) on the contract value and penalty (if any, imposed by Cess Authorities) from the payables on account of non-compliance.
12.	The contractor shall declare to undertake any liability or claim arising out of employment of building workers and shall indemnify BHEL from all consequences / liabilities / penalties in case of non-compliance of the provisions of the Building and other Construction Workers’ (Regulation of Employment and Conditions of Service) Act, 1996 and the Building and other Construction Workers’ Welfare Cess Act, 1996 and the rules made thereunder.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-IX : MATERIAL

9	MATERIAL
9.1	Material to be issued by BHEL (Free of Cost): NIL
9.2	All materials (Including Cement & Reinforcement Steel) required for proper completion of job shall be provided by the contractor and is deemed inclusive in the quoted price. Bidder's scope also includes following:
9.2.1	Furnishing samples of all materials required by the BHEL Engineer for testing/inspection and approval for use in the works. The samples may be retained by the Engineer for final incorporation in the works.
9.2.2	Furnishing test reports for the products used or intended to be used, if called for the specifications or if so desired by the engineer.
9.2.3	Arranging manufacturer's supervision for items of work done as per manufacturer's specifications when so specified.
9.3	Contractor shall set up suitable storage facilities for Cement, sand, cladding sheets, bolts, aggregate, reinforcement steel, structural steel, handrail, grating, foundation bolts, shuttering item, inserts, water proofing material, admixture other BOI's etc. and all are to be stored properly as per IS recommendation/technical specifications/manufacturer recommendation. Wastage due to inadequate storage facilities will be on account of contractor and same shall be replaced by contractor at their own risk & cost without affecting the time schedule for completion of works.
9.4	Procurement and Testing of Materials by Contractor: Material required for the entire job like sand, aggregates, windows, doors, ventilators, rolling shutter, sanitary fixtures, painting & finishing material, electrical fittings and wiring material and all other material required for the completion of entire scope have to be arranged by the contractor. BHEL reserves the right to reject any material not found satisfactory. Rates quoted shall be inclusive of all such contingencies and no additional payment shall be made on this account. For this purpose, sample shall be collected at site in presence of BHEL representative.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-X : BILL OF QUANTITIES AND % WEIGHTAGE OF INDIVIDUAL ITEMS

This Chapter consists of Part A & Part B of Volume II “Price bid”:

<u>CONTENTS</u>	
Description	Remarks
PART A: Instructions to the Bidders	Instructions
PART B: % weightage for amount of individual items of Schedule of quantity	BILL OF QUANTITIES AND % WEIGHTAGE OF INDIVIDUAL ITEMS ATTACHED SEPARATELY.
PART C: Total Lump Sum Price for entire scope of Work	This part is implanted in the E- Procurement portal entitled as “Part-C of Vol-II Price Bid”.
<u>Part A:</u>	<u>Instructions to the Bidders</u>
1.	<u>Bidders shall quote Total Lump-sum Price for the entire scope of work in Rupees in VOL II PRICE BID at BHEL E-procurement Portal.</u> Any other entry elsewhere in the offer of the bidder shall be treated as Null and Void.
2.	BHEL has fixed the % weightages as in “Part-B” for individual items i.e. Office, Safety Park, Store In Charge Room and Closed Sheds w.r.t. the total price of Price Bid Vol-II.
3.	Based on the pre-fixed % weightages, amount of individual items shall be derived by BHEL.
4.	Bidders to note that this is an ‘ <u>Lump Sum contract</u> ’. Payment shall be made stage wise as per payment terms “Chapter-VII”
<u>PART B:</u>	% weightage for amount of individual items w.r.t. the total lump sum price (as quoted by the bidder in “Part C of Vol-II-Price Bid”)- attached separately.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter-XI : TECHNICAL SPECIFICATIONS AND DRAWINGS

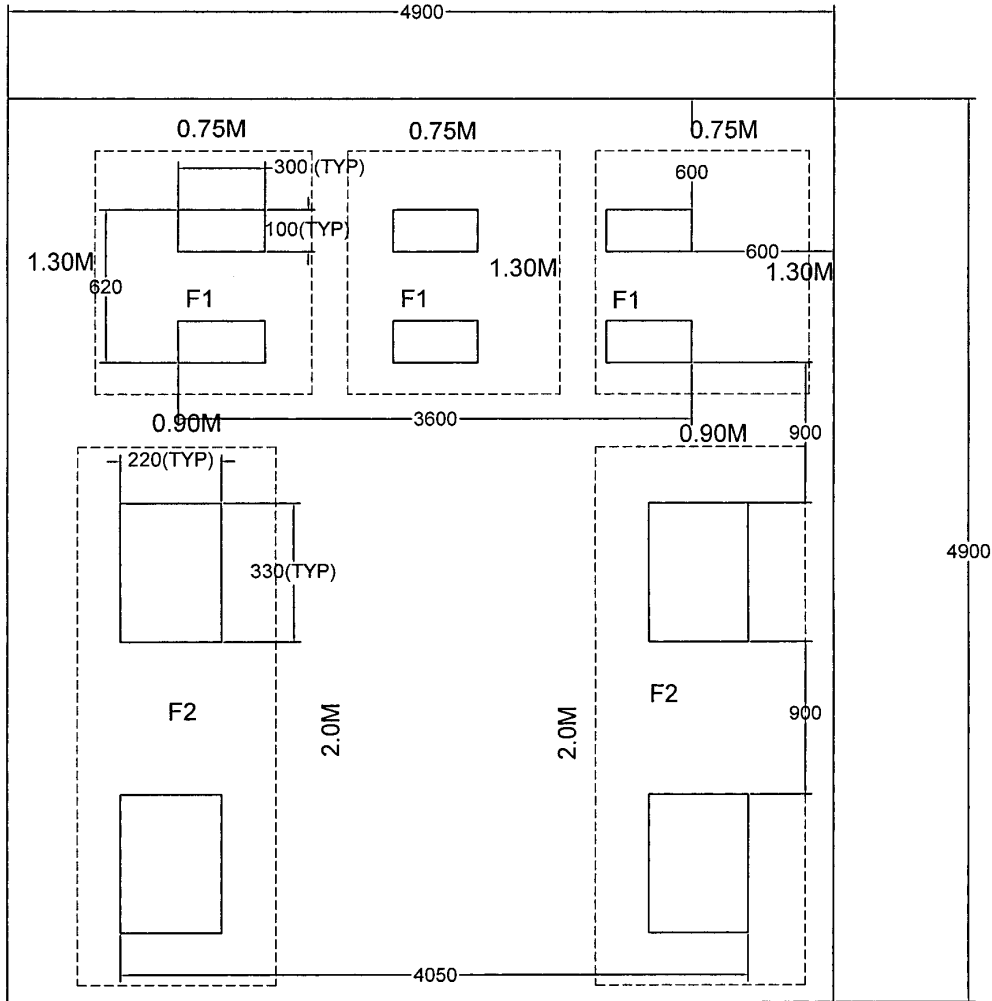
11.0	Following Technical Specifications shall be integral parts of this tender (attached separately):
11.1	Closed Storage Shed (Reference Drawing no: BHEL/PSSR/PROJ/CVL/PEB/005 to BHEL/PSSR/PROJ/CVL/PEB/005 /007 Rev0
11.2	Layout of office building -1 & 2
11.3	Typical Layout of Safety Park
11.4	Drawing of Vertigo Structure
11.5	Furniture (Drawing reference no:-BHEL:PSSR:PMX:OFC:008 Rev0
11.6	PLOT PLAN (TENDER STAGE DRAWING FOR BIDDER'S INFORMATION ONLY. FINAL PLOT PLAN SHALL BE PROVIDED TO THE SUCCESSFUL BIDDER AFTER AWARD OF WORK).
NOTES:	
1	Contractor has to make him well conversant with BHEL's Technical Specification.
2	Above documents have been uploaded Separately.

**Part B of Chapter-X : BILL OF QUANTITIES AND % WEIGHTAGE OF
INDIVIDUAL ITEMS**

TECHNICAL CONDITIONS OF CONTRACT (TCC)	
PREAMBLE FOR BOQ CUM RATE SCHEDULE	
1	Details of the items in the BOQ Cum Rate Schedule shall be read in conjunction with the Corresponding BHEL'S technical specifications, drawings and other documents and shall have precedence over any contrary statement mentioned anywhere in this document.
2	The work shall be carried out as per construction drawings, specifications, the description of the items in this schedule and/or Engineer's instructions, Drawings enclosed with these documents are to provide idea of the type of work involved.
3	Unless specifically mentioned otherwise in the contract, the contractor shall quote his rates for the finished items and shall provide for the complete cost towards fuel, tools, tackle, equipment, constructional plant , temporary works, labour materials, levies , taxes , transport, layout, repairs, rectification, maintenance till handing over, supervision, shops, establishments, services, temporary roads, revenue expenses, contingencies, overheads, profits and all incidental items not specifically mentioned but reasonably implied and necessary to complete the works according to the contract.
4	The rate shall also be inclusive of carrying out topography survey of site to establish levels and coordinates at suitable intervals, form existing grid levels and coordinates furnished by the owner, establish bench marks, setting out the location and levels of the proposed structures, constructions and making references, pillars and other identification marks etc. No separate payment will be made towards the same.
5	BHEL Engineer's decision shall be final and binding on the contractors regarding clarification of items in Rate schedule with respect to the other sections of the contract.
6	In case of any discrepancy between item description, relevant specification, clarification shall be sought at tender stage itself. Otherwise it shall be assumed that the contractor has quoted for the more stringent requirement.

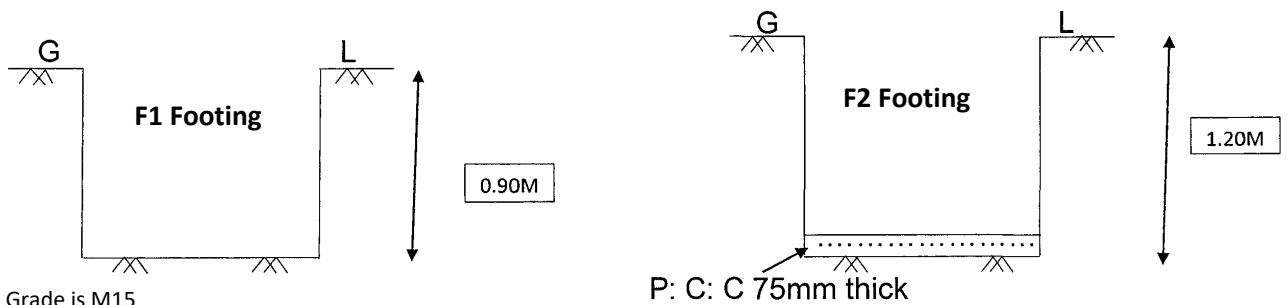
ANNEXURE-I						
ESTIMATE FOR ENABLING WORK FOR FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT						
BOQ CUM RATE SCHEDULE						
NAME OF WORK: DESIGN, MANUFACTURING, SUPPLY, RECEIPT AT SITE, ERECTION, PAINTING & FINISHING WORKS ETC. AND HANDING OVER TO SITE REMOVABLE/ RE-ERECTABLE TYPE PRE-ENGINEERED, PRE- FABRICATED STEEL CLOSED STORAGE SHEDS (6 NOS.),STORE-IN-CHARGE ROOM (2 NOS), OFFICE BUILDINGS (2 NOS.), & SAFETY PARK (1NOS.) INCLUDING CIVIL & ARCHITECTURAL WORKS COMPLETE IN ALL RESPECT AND HANDING OVER OF COMPLETE INFRASTRUCTURE FOR 3 X 800 MW NLC TALABIRA THERMAL POWER PROJECT,JHARSUGUDA,ODISHA, INDIA						
Sl. No.	Particulars	UOM	QUANTITY	RATES (INR)= VALUE FOR PACKAGE-A * WEIGHTAGE /(QUANTITY*100) (ROUNDED OFF TO TWO PLACES AFER DECIMAL)	AMOUNT (INR) TOTAL QUOTED PRICE * QUANTITY	WEIGHTAGE (IN PERCENTAGE)
PACKAGE A- IMMOVABLE PART						
1	Design and Execution of Civil works like Earthwork, P.C.C, Formwork, Reinforcement, Cement concrete works, brick work, plastering, painting etc. (Including foundation) for Steel Storage Sheds (Size 15mx60mx6m (6 Nos), at project site all complete as per technical specifications and reference drawing attached.	Nos.	6	₹ 0.00	₹ 0	19.56567762643
2	Design and Execution of Civil works like Earthwork, P.C.C, Formwork, Reinforcement,Cement concrete works, brick work, plastering,painting etc (Including foundation) for Office building-1, Size 65.7 mx12mx3m (Office with area 788 sqm) at project site all complete as per the technical specification and reference drawing attached.	Nos.	1	₹ 0.00	₹ 0	2.90983317523
3	Design and Execution of Civil works like Earthwork, P.C.C, Formwork, Reinforcement,Cement concrete works, brick work, plastering,painting etc (Including foundation) for Office buildings -2 Size 40mx10mx3m (Office with area 400 sqm) at project site all complete as per the technical specification and reference drawing attached.	Nos.	1	₹ 0.00	₹ 0	1.68283893031
4	Design and Execution of Civil works like Earthwork, P.C.C, Formwork, Reinforcement, Cement concrete works, brick work, plastering,painting etc (Including foundation) for Safety Park- 1 nos. approximate area 250 sqm at project Site all complete as per the technical specifications and reference drawing attached.	Nos.	1	₹ 0.00	₹ 0	1.16475515350
PACKAGE B - MOVABLE PART						
1	Design, Manufacturing, Supply, Receipt at Site, Erection, etc. and Handing over of Removable/Re-erectable type Pre-Engineered, Pre-fabricated Steel Storage Sheds (Size 15mx60mx6m (6 Nos) with side racks for storage purpose etc. as per technical specifications all complete. Note: Including Supply & Erection of Mechanical items, Electrical Items and Long rack shelve system.	Nos.	6	₹ 0.00	₹ 0	37.21193099098
2	Design, manufacturing, Supply, Receipt at site and installation of Store-In-Charge cabin (Size 3 m x 3 m x3m) including Furniture, Air conditioning and associated electrical works (inclusive of transit insurance) as per the technical specification all complete	Nos.	2	₹ 0.00	₹ 0	0.59381188895
3	Design, Manufacturing, Supply, Receipt at Site, Erection & Finishing works etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Office building-1, Size 65.7 mx12mx3m (Office with area 788 sqm) as per the technical specification all complete. Note:- Supply & Erection/Installation of furniture, all electrical works, networking works, airconditioning, part cabins, workstations all complete	Nos.	1	₹ 0.00	₹ 0	19.86395150014
4	Design, Manufacturing, Supply, Receipt at Site, Erection etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Office buildings -2, Size 40mx10mx3m (Office with area 400 sqm) as per the technical specification all complete. Note:- Supply & Erection/Installation of furniture, all electrical works, networking works, airconditioning, part cabins, workstations all complete	Nos.	1	₹ 0.00	₹ 0	11.52483083163
5	Design, Manufacturing, Supply, Receipt at Site, Erection etc. and Handing over to site Removable/ Re-erectable type Pre-Engineered, Pre- fabricated Safety Park- 1 nos. approximate area 250 sqm at project Site as per the technical specifications all complete Note:- Supply & Erection, all electrical works, networking works, airconditioning, parts etc all complete	Nos.	1	₹ 0.00	₹ 0	5.48236990284
TOTAL AMOUNT (IN INR)					₹ 0	

Table 1	
Pg. No.	Topic
1	Vertigo Test Structure Layout – Illustrative/ Sample
2, 3	Structure Layout Sketch
3	Actual Photo of a typical structure
4	Guidelines for Conducting the Test


Note:

- All dimensions are in mm
- Drawing is not to scale
- Inside boundary area to be filled with sand to level with road (external)
- Details of F1 and F2 are shown below

Figure 1: Vertigo / Height Work Test Structure Layout


Note:

- Concrete Grade is M15
- Drawing is not to scale
- TOC is at Road Level
- G L refers to Ground Level

Figure 2

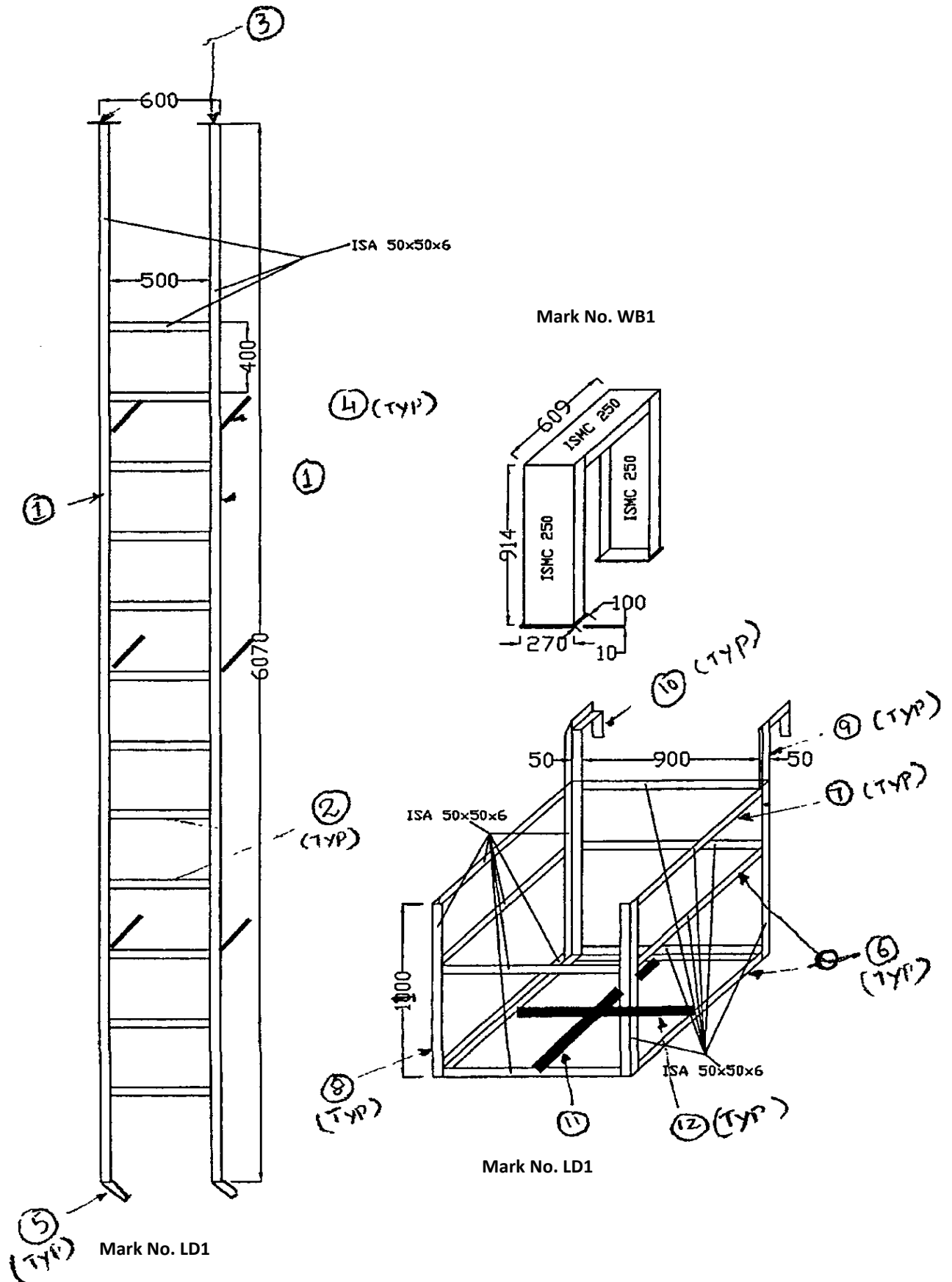
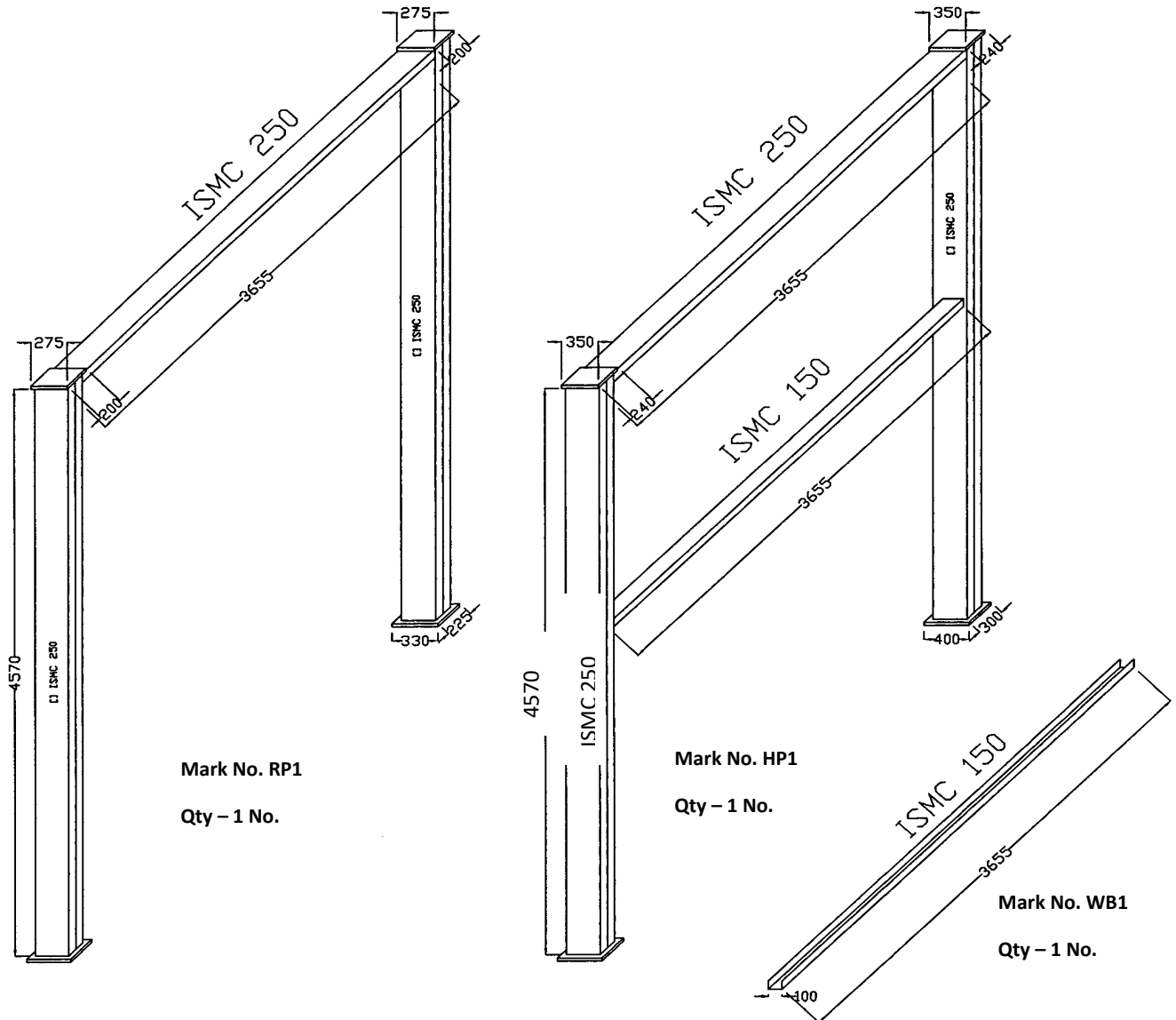


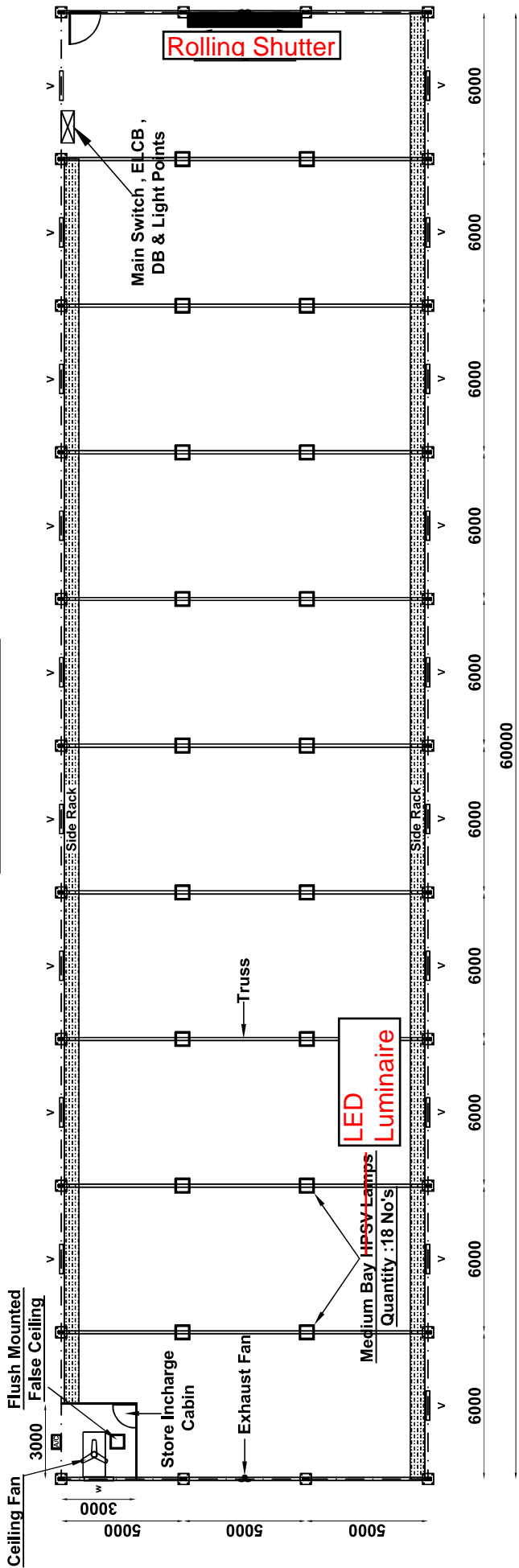
Figure 3

Figure 4:



Pic-1: Actual Photo of a Typical Vertigo Test Structure

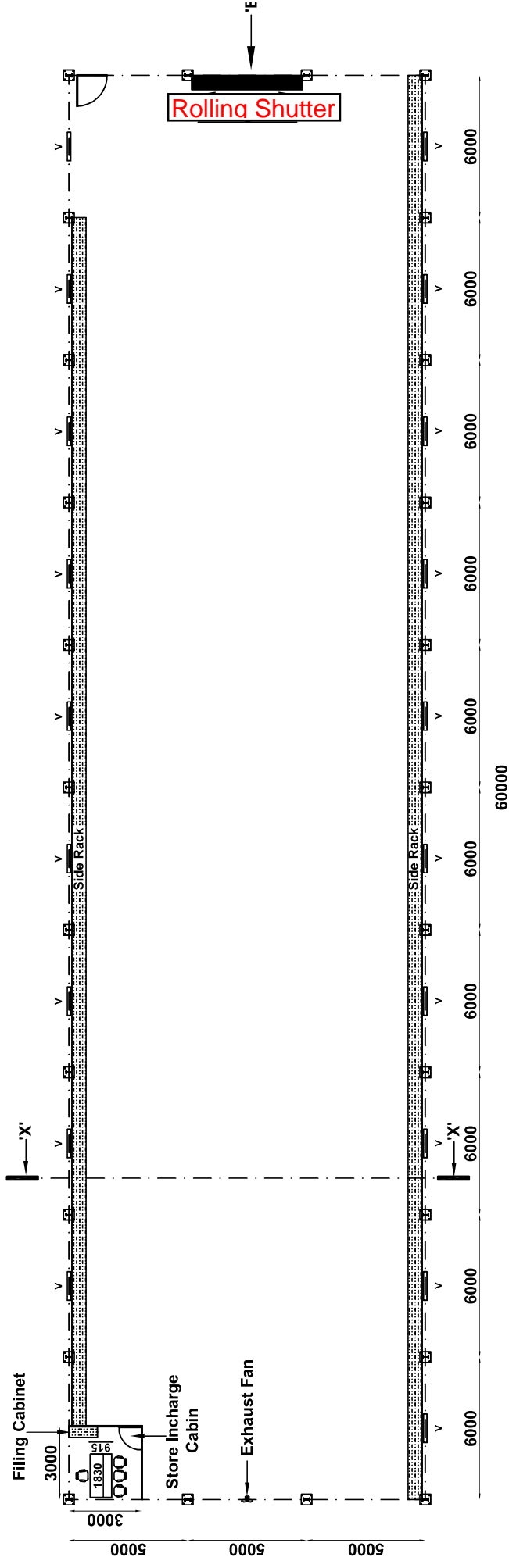
Layout of Closed Store Shed



Electrical Layout

CLIENT : BHEL (PSSR) PROJECT : CLOSED STORE SHED	DRAWN BY :	CHECKED BY :	DWG NO : BHEL/PSSR/PROJ/CVL/PEB/005	SCALE : NTS
	DESIGNED BY :	SIZE : 60 X 15 X 6M HT.	DATE : 08.04.2010	REV. NO : 0
			PROJECTION	

Layout of Closed Store Shed

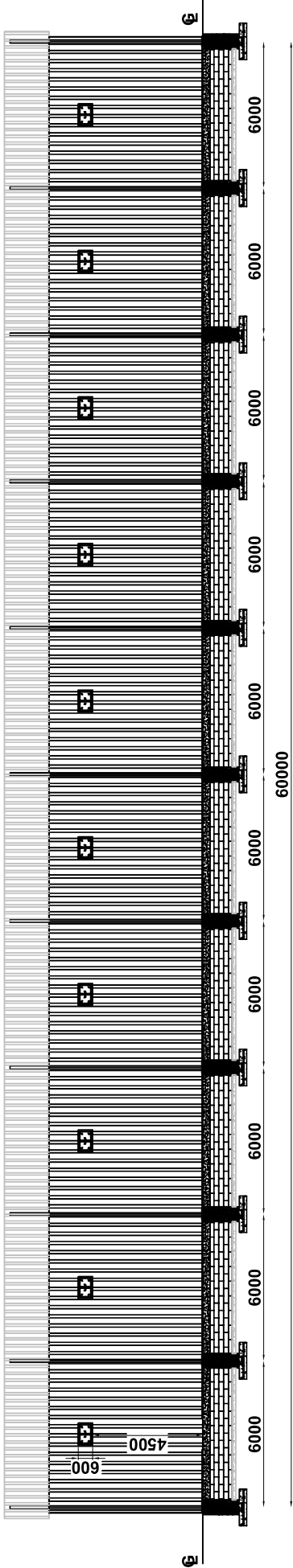


↑ 'A'

PLAN

CLIENT : BHEL (PSSR) PROJECT : CLOSED STORE SHED	DRAWN BY :	CHECKED BY :	DWG NO : BHEL/PSSR/PROJ/CVL/PEB/006	SCALE : NTS
	DESIGNED BY :	SIZE : 60 X 15 X 6M HT.	DATE : 08.04.2010	REV. NO : 0 PROJECTION

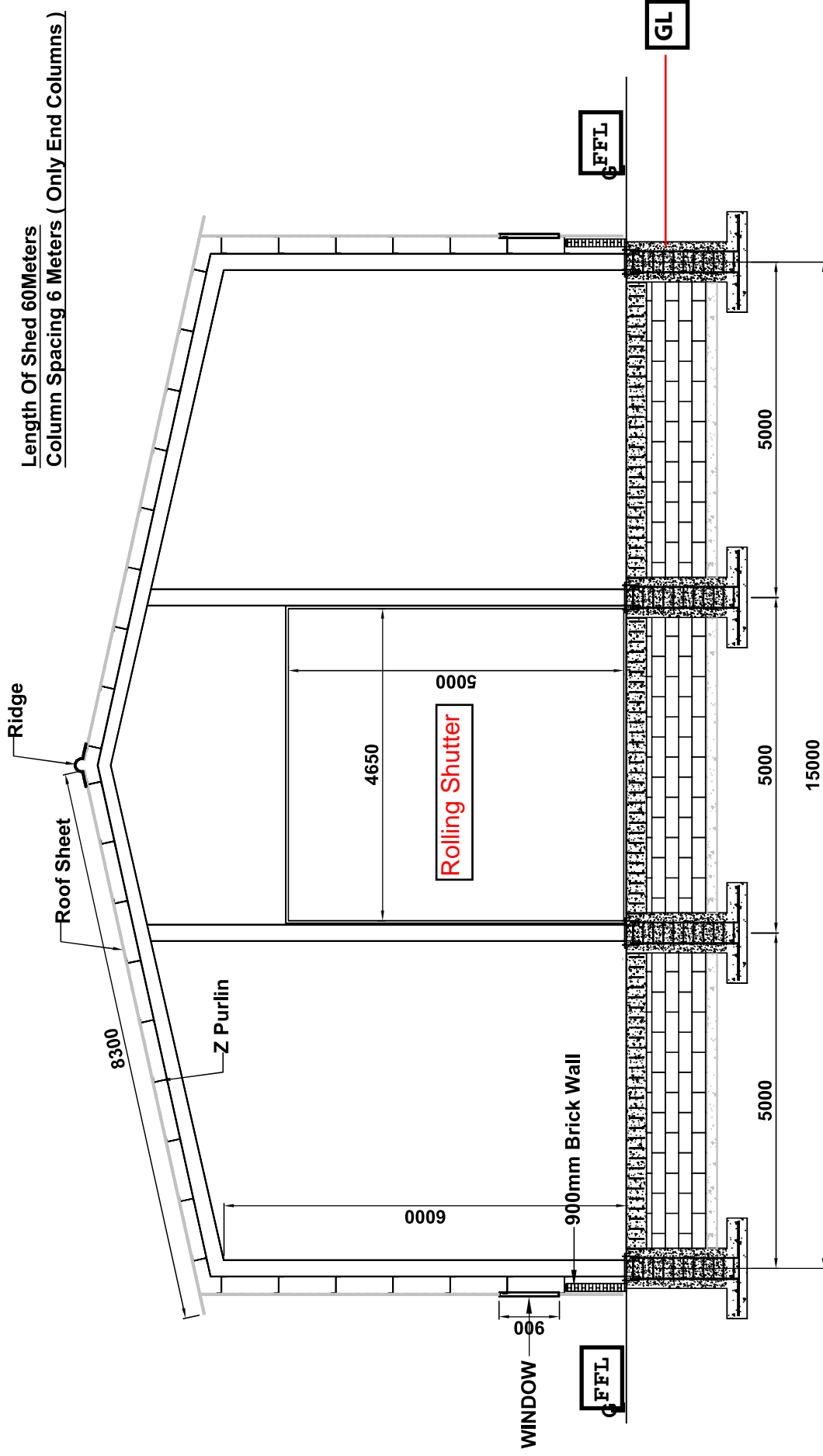





VIEW 'A'

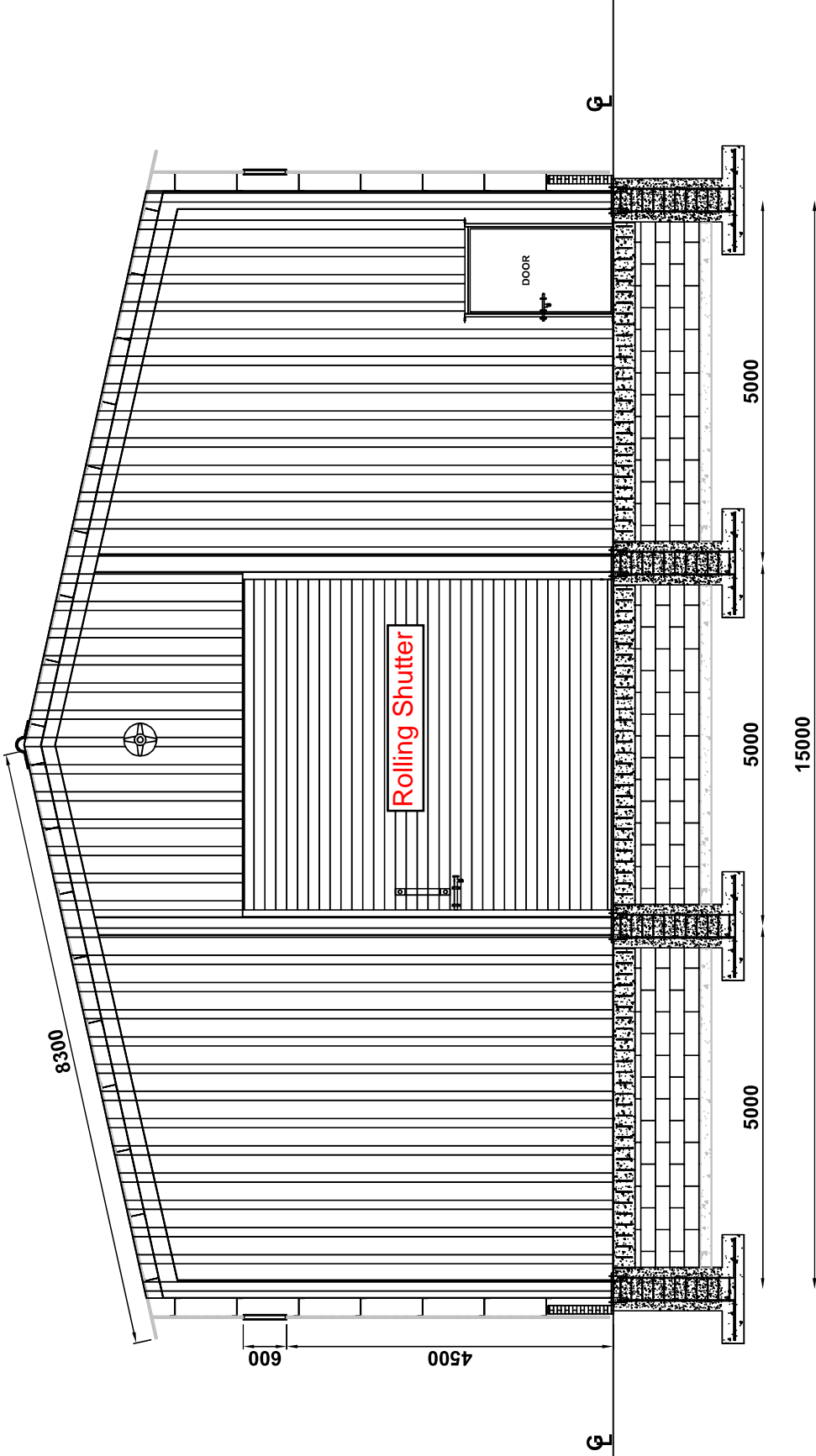
	CLIENT :		DRAWN BY :	CHECKED BY :	DWG NO : BHEL/PSSR/PROJ/CVL/PEB/007		SCALE :	NTS
	BHEL (PSSR)		DESIGNED BY :	SIZE :	60 X 15 X 6M HT.	DATE : 08.04.2010	REV. NO : 0	PROJECTION
								

Length Of Shed 60Meters
Column Spacing 6 Meters (Only End Columns)



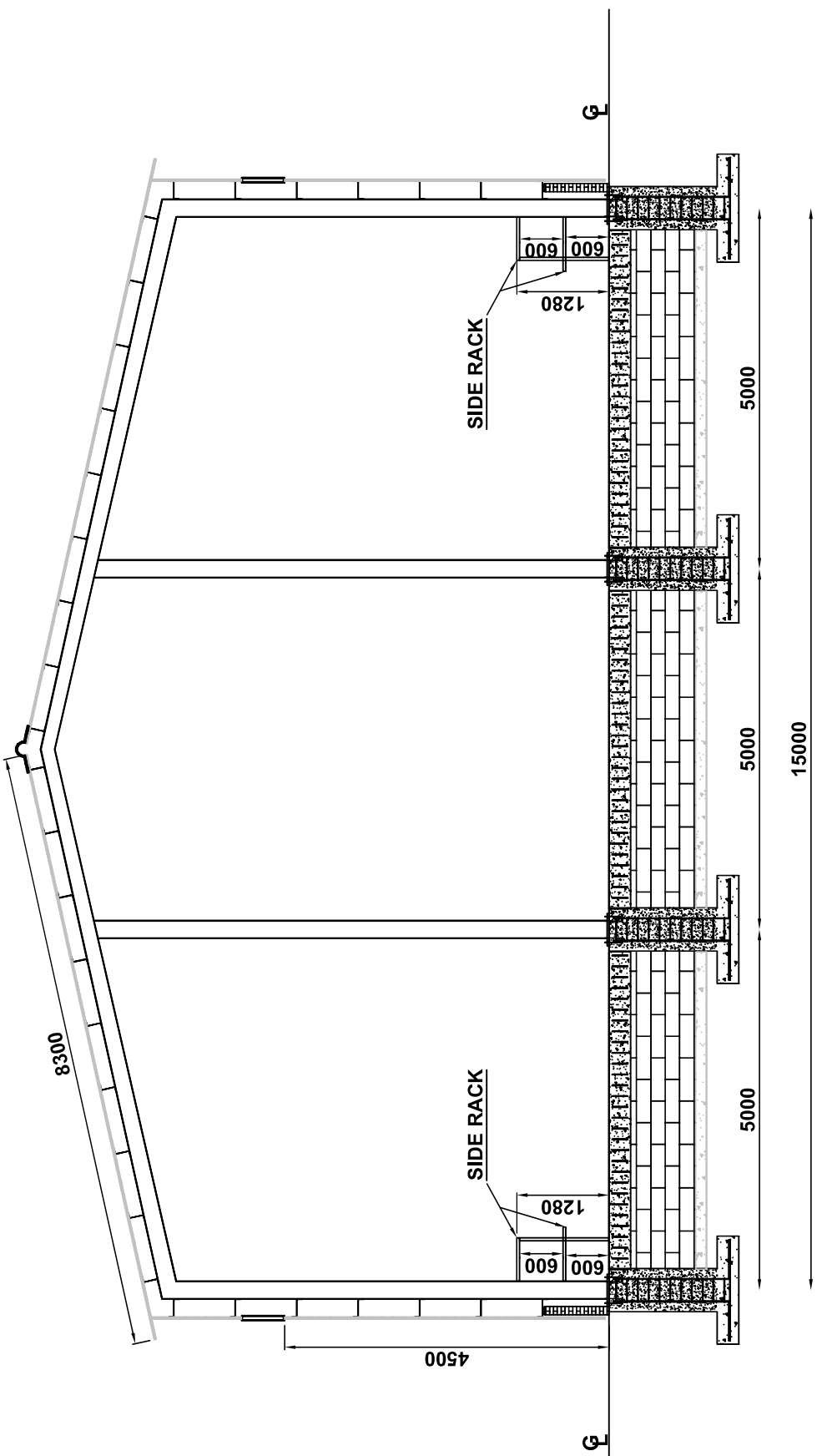
ELEVATION

CLIENT : BHEL (PSSR) PROJECT : CLOSED STORE SHED	DRAWN BY :	CHECKED BY :	DWG NO : BHEL/PSSR/PROJ/CVL/PEB/008	SCALE : NTS
	DESIGNED BY :	SIZE : 60 X 15 X 6M HT.	DATE : 08.04.2010	PROJECTION : 
			REV. NO : 0	



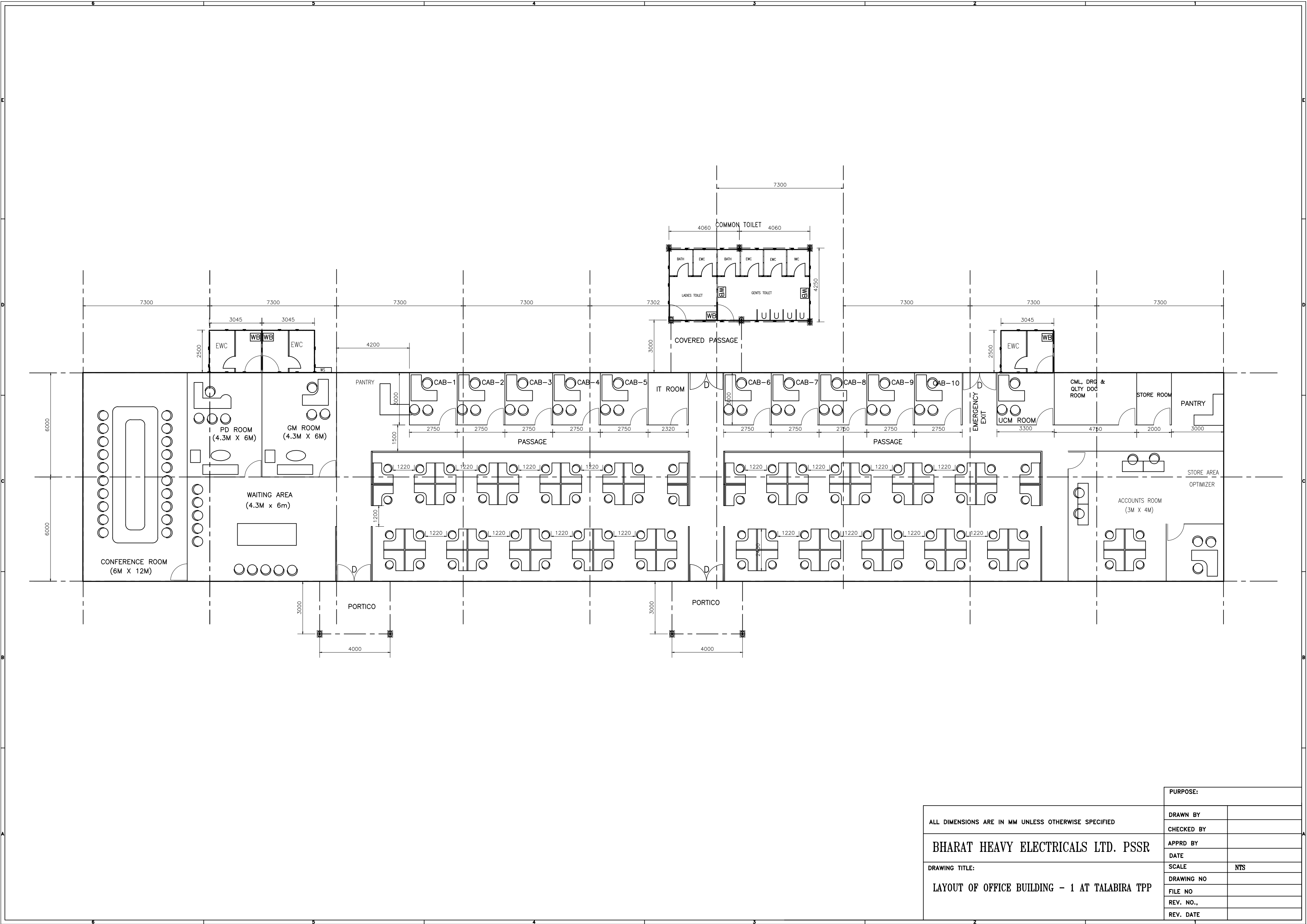
VIEW 'B'

CLIENT : BHEL (PSSR) PROJECT : CLOSED STORE SHED	DRAWN BY :	CHECKED BY :	DWG NO : BHEL/PSSR/PROJ/CVL/PEB/009	SCALE : NTS
	DESIGNED BY :	SIZE : 60 X 15 X 6M HT.	DATE : 08.04.2010	PROJECTION : 
			REV. NO : 0	

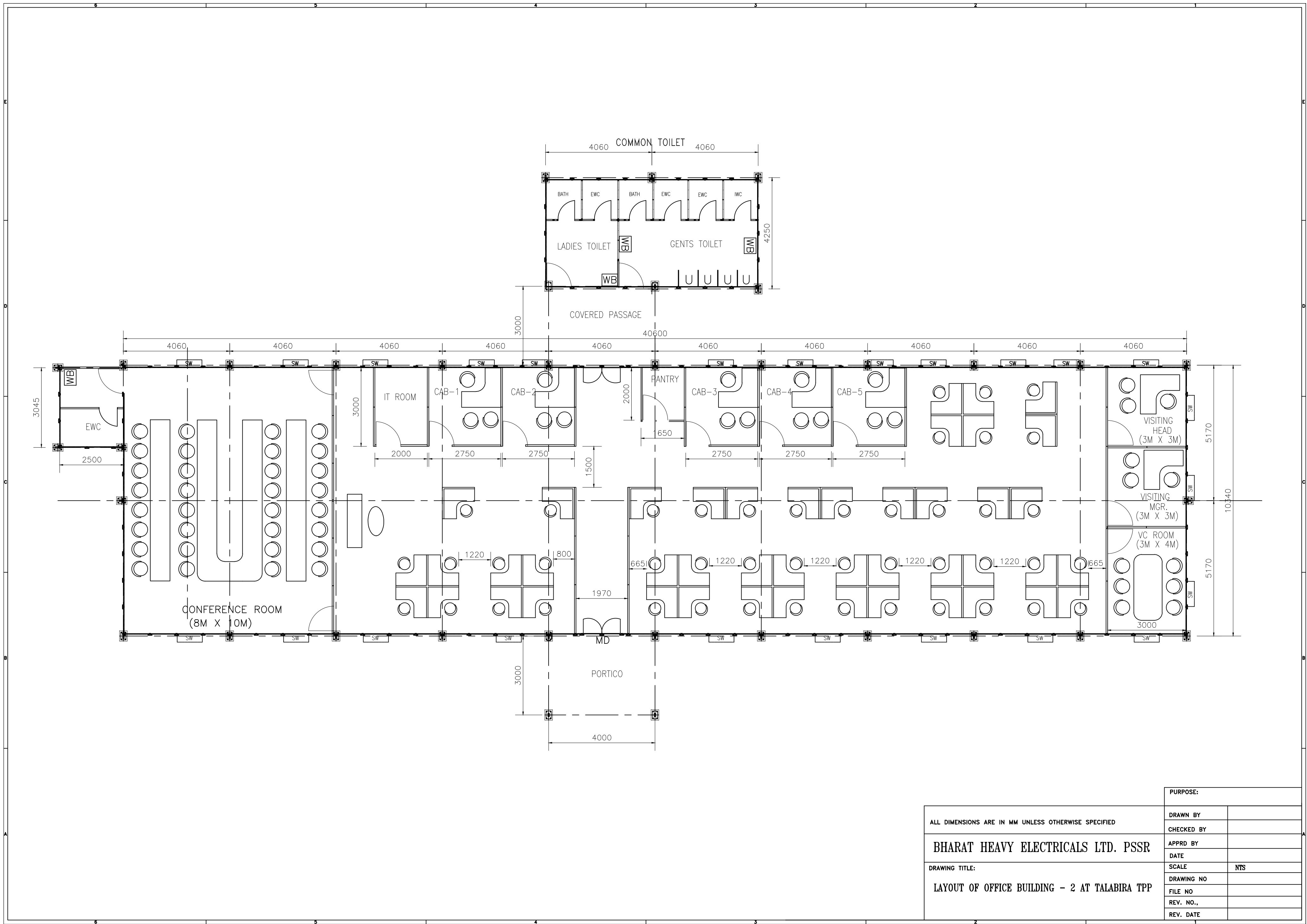


SECTIONAL VIEW AT - 'X' - 'X'

CLIENT :	BHEL (PSSR)	DRAWN BY :	CHECKED BY :	DWG NO : BHEL/PSSR/PROJ/CVL/PEB/010	SCALE : NTS
	PROJECT : CLOSED STORE SHED	DESIGNED BY :	SIZE : 60 X 15 X 6M HT.	DATE : 08.04.2010	PROJECTION : 
				REV. NO : 0	

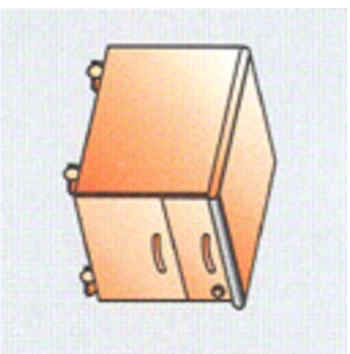
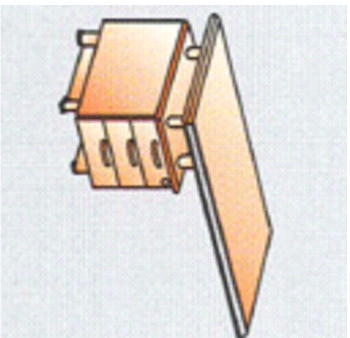
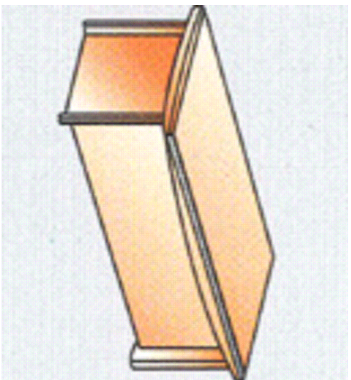


ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED BHARAT HEAVY ELECTRICALS LTD. PSSR DRAWING TITLE: LAYOUT OF OFFICE BUILDING - 1 AT TALABIRA TPP	PURPOSE:	
	DRAWN BY	
	CHECKED BY	
	APPRD BY	
	DATE	
	SCALE	NTS
	DRAWING NO	
FILE NO		
REV. NO.,		
REV. DATE		



ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED BHARAT HEAVY ELECTRICALS LTD. PSSR DRAWING TITLE: LAYOUT OF OFFICE BUILDING - 2 AT TALABIRA TPP	PURPOSE:	
	DRAWN BY	
	CHECKED BY	
	APPRD BY	
	DATE	
	SCALE	NTS
	DRAWING NO	
FILE NO		
REV. NO.,		
REV. DATE		

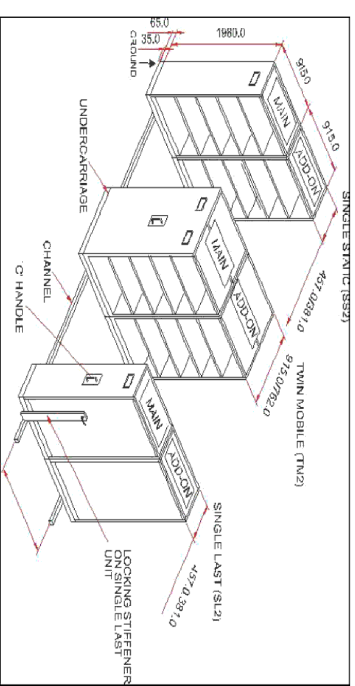
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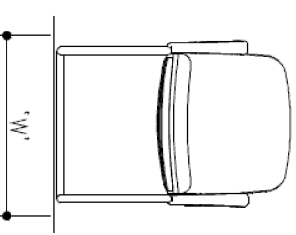
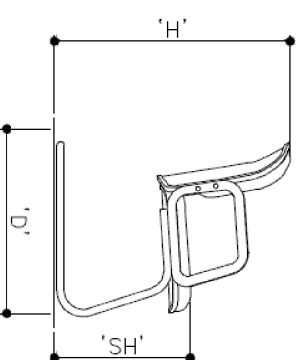
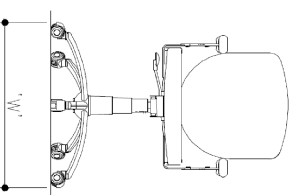
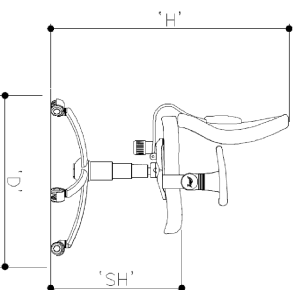
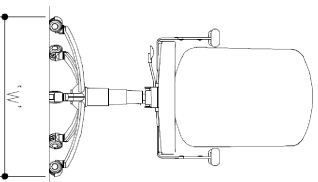
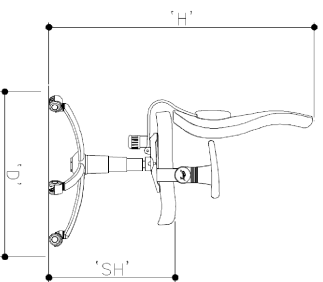
Desk-W180xD90xH75

Fixed side return Desk
W120xD60xH72

Mobile pedestal
W120xD60xH72

MAESTRO TYPE TABLE FOR SITE-IN-CHARGE

PULL - PUSH TYPE OPTIMIZER



Chair for Senior executives

W-70cm,
D-70cm,
H-102 to 115cm,
SH-44 to 56.5cm
Tolerance- ± 0.5 cm

Chair for Executives & Conf. hall

W-70cm,
D-70cm,
H-90 to 102.5cm,
SH-44 to 56.5cm
Tolerance- ± 0.5 cm

Chair for visitors:

W-55cm,
D-61cm,
H-80.5 cm,
SH-44 cm,
Tolerance-±0.5cm


NOTE:-

ALL DIMENSIONS SHOWN ARE ASSUMED AND SHOULD BE VERIFIED ACCORDINGLY



BHARAT HEAVY ELECTRICALS LTD
POWER SECTOR – SOUTHERN REGION
CHENNAI

TITLE:
FURNITURE DRAWINGS

DEPT.	CNL		BHEL DRAWING NO. BHEL-PSR-PMK-07C-008
STRUCTURAL			
SIGN			
DATE	26-11-2010	SHEET	1 OF 1 REV. 00

