

Bharat Heavy Electricals Ltd
Electronics Division
Mysore Road, Bangalore – 560 026

Tender Document for the work of
CONSTRUCTION OF HR & IT BLOCK
INSIDE THE FACTORY PREMISES

Due Date Of Submission Of Duly Filled-in

Tender Document - Before 3.00 P.M 07-03-2011

Technical Bid opening on: At 3.15 P.M 07-03-2011

This Tender Document Contains 43 Pages

Part – I Technical cum commercial bid 02 Pages

Total 45 Pages

Part – II Price Bid - 23 Pages

Note: Part – I: To be submitted in a separate sealed cover
along with EMD.

Part – II: To be submitted in a separate sealed cover.

And Part-I & Part-II sealed covers should be put in outer
envelope and super scribing the Name of work and Name &
Address of the tenderer.

BHARAT HEAVY ELECTRICALS LIMITED, ELECTRONICS DIVISION
MYSORE ROAD, BANGALORE-560026

DEPARTMENT : FACTORY SERVICES / CIVIL

TENDER ENQ. NO: **BHE/315/10/2543/47**

DATE : 14-02-2011

PART-I
TECHNICAL-CUM-COMMERCIAL BID

(To be furnished by the Bidders)

01. NAME OF THE WORK : **Construction of HR & IT Block inside the Factory premises**
02. APPROXIMATE ESTT.COST RS : **Rs 500.00 lakhs**
03. STIPULATION PERIOD : **EIGHTEEN MONTHS**
- 04.NAME OF THE CONTRACTOR :
05. ADDRESS
- (A) OFFICE :
-
- TEL.PH NO :
- (B) RESIDENCE :
-
- TEL.PH NO :
06. QUALIFICATION :
07. STAFF STRENGTH :
- (A) TECHNICAL :
- (B) GENERAL :
08. PLANT/EQUIPMENTS :
09. WHETHER COST OF TENDER DOCUMENT PAID. IN CASE OF DOWNLOAD OF TENDER DOCUMENT FROM WEBSITE, THE SAME SHOULD BE ENCLOSED IN THE FORM OF **DD FOR Rs.500/-IN FAVOUR OF BHEL EDN, BANGALORE.** :.....

CONTRACTOR
(With Seal)

EMPLOYER

10. a) SCOPE OF WORK : UNDERSTOOD/ NOT UNDERSTOOD
(as per schedule of items)
b) ACCEPT TO EXECUTE IN TOTAL : YES/ NO
11. FINANCIAL TURN OVER DURING
LAST 3 YEARS (Enclose copy of documents) :
12. EXPERIENCE CERTIFICATE SUCCESSFULLY
COMPLETED SIMILAR WORKS DURING LAST
7 YEARS (copy of completion certificate to be enclosed):
(A) Three similar completed works (each not less
than 40% of the Estimated cost) :
OR
(B) Two similar completed works (each not less
than 50% of the Estimated cost) :
OR
(C) One similar completed works (each not less
than Equal to 80% of Estimated cost) :
13. EMD PARTICULARS :
(A) CASH :
(B) DEMAND DRAFT :
14. ACCEPTANCE :
(A) DRAWINGS :
(B) DESIGNS :
15. a). WHETHER REGISTERED WITH
GOVT. AGENCIES SUCH AS
CPWD/STATE PWD/MES/RAILWAY/ :
OTHER PUBLIC SECTOR
UNDERTAKING ETC.,
b) VALIDITY OF REGISTRATION :
16. BHEL'S PAYMENT TERMS : WHETHER ACCEPTABLE / NOT
17. a) Whether registered with ESI/PF authority : YES/ NO
and have Register No. (if yes indicate nos.)
b) Whether agreeable to make necessary : YES/ NO
statutory payments as per BHEL EDN terms
18. Electronic Funds Transfer(EFT) form enclosed : Please fill up the form ANNEXURE-II
19. PAN Card details : Please enclose PAN Card details
20. Service Tax Registration No. : Please enclose Service Tax Registration No.

CONTRACTOR
(With Seal)

EMPLOYER

Phone: 26998408
26998409

**Bharat Heavy Electricals Limited
(ELECTRONICS DIVISION)
MYSORE ROAD, BANGALORE - 560 026.**

FS CIVIL ENGG. DEPT

NOTICE INVITING TENDERS

1. TENDER NUMBER : BHE/315/10/2543/47, dt : 14-02-2011
2. NAME OF WORK : CONSTRUCTION OF HR & IT BLOCK INSIDE THE FACTORY PREMISES
3. COMPLETION TIME : EIGHTEEN MONTHS
4. ESTIMATED COST : APPROX. RS. 500.00 Lakhs
5. EARNEST MONEY DEPOSIT : Rs.2.00 Lakhs
6. LAST DATE AND TIME FOR THE SUBMISSION OF DULY FILLED INTENDER DOCUMENT : BEFORE 3.00 PM ON ...07-03-2011
7. PLACE OF SUBMISSION OF TENDER DOCUMENT : AT THE RECEPTION
TENDER BOX / FACTORY SERVICE
BHEL / ELECTRONICS DIVISION
MYSORE ROAD,
BANGALORE - 560 026.
8. DATE AND TIME FOR TECHNICAL BID OPENING : AT 3.15 P.M ON 07-03-2011

NOTE: The Tenderer shall return the duly filled in Tender document after affixing signature on all pages.

CONTRACTOR

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ISSUED TO CONTRACTOR:

INSTRUCTION TO TENDERER

1. Sealed Tender for the above noted work are hereby invited from Contractors experienced in works of similar kind and magnitude.
2. Tenders should be addressed to the AGM/FS, Electronics Division, Bharat Heavy Electricals Limited, Mysore road, Bangalore – 560 026 in two separate sealed cover for “Technical cum Commercial Bid” and Price Bid duly superscribed and put in a outer envelop, superscribing the Name of Work and Name and Address of he Tenderer.
 - 2.1 . The local address of the Contractors, the name of the person to whom all the correspondence are to be addressed should be indicated, with telephone number (both office and residence) and telex numbers.
3. All entries in tender documents should be in one ink. Eraser and over writing are not permitted. All cancellation and insertion should be duly signed by tenderer concerned with proper indication of the name designation and address of the person signing.
4. Tenders shall fill in all the required particular in the blank space provided for this purpose in the tender documents and also sign in each and every page of the tender document including the drawings attached there to before submitting tender.
5. Unit rate should be quoted in figures as well as in words in Indian Currency only i.e. Rupees and Paise with reference to each item and for the items shown in the attached schedule. These rates shall be for the finished work at site. The rate shall include all taxes and duties payable an account of Octroi, Sales Tax, tax on work contract etc., etc., and also expenses towards PF and ESI contributions (see clauses 8, 39 and Annexure ‘C’). Amount of each item and total on each sheet as also the grand total amount of the whole contract shall be filled by the tenderers.
6. In case the rate quoted in figures differs from those quoted in words, the lower of the rates will be taken as the tendered rate and shall be binding on the tenderer.

CONTRACTOR

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7. In quoting rates, the tenderer are advised to take into account all factors including any fluctuations in market rates. No claim for enhanced rates will be entertained on this account after acceptance of the tender or during the currency of the contract.
8. The rate to be quoted by the tenderer shall be firm and shall cover and include all statutory levies such as “Octroi, sales tax, excise duty etc., arising from Act passed by Parliament or State Legislature and rules framed there –under. The rates shall further be deemed to include statutory levies arising from such Acts, Central or State, which may come into force, subsequent to submission of tenders. The tenderer shall note that no claim for enhancement rates, on the ground that existing statutory levies have been increased, or that new statutory levies have come into effect after tender, or on any other ground, will be entertained on any account.
9. (a) The rate quoted in the tender shall remain valid for a period of ‘ THREE MONTHS’ from the date of opening tender.
(b) Tenderer shall not increase their quoted rates, once the tenderer has submitted his quotation and during execution of contract in case his tender is accepted.
10. Quantities shown in the schedule are only approximate and are liable to variation without entitling the Contractors to any compensation, provided the total value of the contract does not vary by more than 20% (Twenty percent)
11. Before tendering, the tenderer are advised to inspect the site of work and its environments and be well acquainted with the actual working and other prevailing conditions, position of material and labour. They should be well versed with BHEL General conditions of Contract instruction to the tenderers, drawing and specification and all other documents which form part of the agreement to be entered into subsequent award of work. The tenderer should be specially note that it is tenderers responsibility to provide any items which is not specifically mentioned in the specifications and drawing, but which is necessary to complete the work.
12. Details and quantities of each item of work shown in the bill of quantities attached here to only approximate. They are given as a guide for the purpose of tendering only and are liable for variation and alteration at the discretion of the competent authority. The work under each item as executed shall be measured and price at the corresponding rates to be quoted by the Contractor in the bill of quantities attached hereto.

CONTRACTOR

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13. Should a tenderer find discrepancies or omission in the drawing attached to the tender documents or should be in doubt as to their meaning he should at once address to the authority inviting the tender for clarifications. Every endeavor is made to avoid any error which can materially effect the basis of the tender but successful tenderer shall take upon himself to provide for the risk of any error which may be subsequently discovered and shall make no subsequent claim on account there of.
14. In the event of the tender being submitted by a firm the tender must be signed separately and legibly by each partner or member of the firm or in their absence, by the person holding the power of Attorney on behalf of firm concerned. In the later case, a copy of the power of Attorney duly attested by the Gazette Officer must accompany the tender.
15. If in any case, the date of Tender Opening falls on holiday, the Tender will be opened on the next working day.
16. Every tender must be accompanied by deposit receipt for the amount mentioned as Earnest Money Deposit. This earnest money will be refunded to the unsuccessful tenderer after finalization of the award of work. In the case of successful tenderer, the earnest money will be retained as a part of Security Deposit for satisfactory completion of the work in accordance with Clause-16 of BHEL General Conditions of the Contract. Tenders without Earnest Money Deposit receipt are liable to reject. No interest will be paid on the earnest money deposit.
17. The Earnest money deposit may be furnished in any of the following forms:
 - a) Cash.
 - b) Pay order.
 - c) Demand Draft in favour of BHEL EDN, Bangalore – 560026.
18. Unless the contractor whose tender is accepted signs contract agreement within fifteen days (15 days) of the date of the order directing him to do so, the amount of Earnest Money already deposited by him may be forfeited and acceptance of the tender withdrawn.

CONTRACTOR

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19. If after opening of tenders a tenderer revokes his tender or increase his earlier quoted rates or after acceptance of his tender does not commence the work in accordance with the instruction of Engineer –in-charge, the Earnest Money Deposited by him will be forfeited and acceptance of his tender withdrawn. If only a part of work included in the tender had been awarded to the tenderer, the amount of Earnest Money to be forfeited will be based on value of the contract so awarded.
20. The BHARATH HEAVY ELECTRICALS LIMITED reserve the right to reject any or all the tenders received or accept any tender or part thereof without assigning reason there of. In the case of acceptance of a part of tender, the time for completion may also be reduced to the extent considered approximately by the accepting authority.
21. Conditional and Unsigned tenders, tender containing absurd rates and amounts, tenderer which are incomplete or otherwise considered defective, tenders which are not in accordance with the tender conditions laid down by the accepting officer and tenders not submitted in the prescribed forms are liable to be rejected.
22. The Contractors not borne on the approved list of Contractors of this organization must submitted the following testimonials simultaneously with their tender superscribed. These testimonials shall be signed by the person(s) issuing the same indicating their name designation and full address.

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1. A certificate to establish that the tenderer is an independent contractor working on his own.
2. At least 2 certificate from the responsible Officer of Government or Firms of repute, regarding the tenderers capacity to undertake and carryout the work tendered for similar work satisfactorily.
3. A certificate from the Bank of standing or magistrate regarding the tenderer financial position.

Note: (a)Copies of testimonials unless attested by a Gazetted Officer will not be accepted.
 (b) Non submission of the above testimonials simultaneously with the tenders may result in the tenders being rejected.

CONTRACTOR

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23. The tenders should be accomplished by a list of Contractors already held by the Contractor at the time of submitting the tender and giving the following particulars:
 - a) Name of the work, value and address.
 - b) The balance work remaining to be done on the same.
24. Tenders submitted by the post should be sent by “Registered Post with acknowledgement due”.

These should be posted with due consideration of any delay in postal delivery.

Tenders received after the due date of opening tenders are liable to be rejected.
25. The Contractors responsibility under this contract shall commence from date of receipt of the order or acceptance of tender.
26. If tenderer expires after the submission of the tender or acceptance of his tender, the BHEL, may at their discretion cancel such tender.

If a partner of a firm expires after the submission the tender, after the acceptance of tender, BHEL, may cancel such tenders at their discretion unless the firm retains its character/s.
27. THE BHARATH HEAVY ELECTRICALS LIMITED will not be bound by any power of Attorney granted by the tenderer or changes in the composition firm made subsequent to execution of contract. They may however recognize such power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor concerned.
28. If the tenderer deliberately gives wrong information on his tender, the BHEL reserves the right to reject such tender at any stage.
29. Words imparting the singular number shall also be deemed to include the plural number and vice-versa where the context so require.
30. The General and Special Conditions are complementary to each other and where they are in conflict, the special condition shall prevail.
31. The expenses for completing the stamping agreement shall be paid by the contractor.

CONTRACTOR

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32. Unless or otherwise stated above tendered work includes supply, erection, testing and commissioning of equipments as agreed to in the contract.
33. After completing of the job, the contractor has to furnish actual drawings of work done in consultation with Engineer-in-charge.
34. Any covering letter and comments of the Contractor should be submitted in duplicate along with the offer.
35. Cement for carrying out Civil Works will be supplied by Contractor.
36. The Contractor shall provide all the materials needed for trial run, testing including chemicals, consumables etc. In quoting their rates, the Contractors are advised to take into account the cost of the above materials.
37. Should a tenderer or a contractor on the list of approved contractors has a relative or in the case of firm or Company of Contractors any of its share holders relative is employed in a Gazetted Capacity in the Electronics Division of Bharat Heavy Electricals Limited, Banalore-26, the authority inviting tenders shall be informed of this fact at the time of submission of the tender, failing which tender may be disqualified or if such fact subsequently come to light, the relevant provisions of the General Conditions of Contract will apply.
38. These 'INSTRUCTIONS TO TENDERERS' & GENERAL CONDITIONS OF CONTRACT OF BHEL' shall be deemed to form an integral part of the Contract agreement for the work to be entered into. In cases of variation between the two in any matter, the conditions in the 'THE INSTRUCTIONS TO TENDERERS' shall prevail. Extracts of some of the important clauses of BHEL G.C.C are enclosed (Annexure containing extracts of clauses 20,38 and 58 of BHEL G.C.C). The Contractor has to obtain, at his cost, a copy of the BHE: GCC., Scrutinise the same, and when submitting his tender, indicate his acceptance of BHEL GCC.
39. All operations to be carried out by the Contractor during the execution of the contract such as drilling, welding etc., shall be done with proper equipments to be brought by the tenderer. Suitable power point will be provided and tapping from the power point equipment shall be done using proper size of cables equipments and after getting approval of connections from our Engineer-in-charge.

CONTRACTOR

EMPLOYER

40. The Contractor shall comply with the provision of Employees Provident Fund's and miscellaneous Provisions Act 1952 and rules, regulations and other orders issued there under. He as an employer shall be liable to pay employer's contribution/deductions towards PF under the PF Act in respect of all labour employed by him for the execution of the contract in accordance with the provisions of the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 as amended from time to time. For this purpose he shall indicate the code number obtained from the Regional Provident Fund Commissioner or he should obtain a code number if he has not and produce the Photostat copy of the challen receipt of monthly remittance of the contribution made by him to the Commissioner. Final payments due to him will be released only on production of a "No due certificate" from the Regional Provident Fund Commissioner. He shall also furnish such returns such returns as are due, under the Act, to be sent to the appropriate authorities through the Principal Employer".
41. The Contractor should get himself registered with the E.S.I Authorities as an independent Employer, obtain a separate code number and remit the dues in respect of the Labour employed by him for the work and produce the challans/Receipts of remittance of the ESI contributions due under the E.S.I Act to the Company authorities. He shall also furnish such returns, as are due, under the Act, to be sent to the appropriate authorities' through the Principal Employer.
- 41.1. If any action is brought in by P.F. Commissioner/ESI authorities on BHEL for the work done by the Contractor for his labourers regarding PF/ESI amount due, short remittances, non remittances etc., the Contractor shall defends the case on behalf of BHEL and / or reimburse BHEL the expenses so incurred.
- 41.2. The Contractor shall apply and obtain license under Contract labour(R&A) Act 1970 and comply the relevant provisions of this Act in respect of the labour employed by him for executing this contract. The Contract. The contractor shall furnish necessary returns to the authority through the Principal Employer.
42. Contractor shall insure all his labourers and material. Any claim by his Employees for damages shall be settled by the Contractor even if action is against BHEL or to reimburse the legal expenses incurred by BHEL.
43. Any action brought in by anybody on BHEL regarding patent, right etc., used by Countractor in execution of work shall be defended by the Contractor and / or reimburse BHEL the cost of the same.
44. Contractor shall produce necessary records, documents, explanation whenever he is called upon to do by any Government Agencies like ESI, PF, VIGILANCE etc.,

CONTRACTOR

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BHARAT HEAVY ELECTRICALS LIMITED

(ELECTRONICS DIVISION)

MYSORE ROAD, BANGALORE-560 026

GENERAL CONDITIONS OF CONTRACTS/ TECHNICAL SPECIFICATIONS

It is hereby agreed by me/us that the BHEL General Conditions of Contract and Technical Specifications for Civil Works including subsequent amendments/ additions/deletions to clauses if any, and conditions pertaining the settlement of disputes by Arbitration form an integral part of the tender documents and that the tender submitted by me/ us is subject to the aforesaid BHEL General Conditions of Contract and BHEL-EDN Technical Specifications for Civil Works which has been read and accepted by me/us.

CONTRACTOR

EMPLOYER

ANNEXURE 'C'

CLAUSE 20 OF GENERAL CONDITIONS OF CONTRACT LABOUR

The Contractor shall employ labour in sufficient numbers either directly or through sub-contractors to maintain the required date of progress and of quality to ensure workmanship of the degree specified in the contract and to the satisfaction of the Engineer-in-charge. The contractor shall not employ in connection with the works any person who has not completed his eighteen years of age.

The contractor shall furnish to the Engineer-in-charge at the intervals specified by him, A distribution return of the number and description by trades of the work people employed on the works. The Contractor shall also submit on the 4th and 19th or every month to the Engineer-in-charge a true statement showing in respect of the second half of the preceding month and the first half of the current month (I) the accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused by them and (ii) the number of female workers who have been allowed maternity benefits as provided in the maternity benefit Act, 1961 or Rules made there under and the amount paid to them.

The contractor shall pay to labour employed by him either directly or through sub-contractors wages not less than fair wages as defined in the contractors Labour Regulations.

The Contractor shall in respect of labour employed by him either directly or through sub-Contractors comply with or causes to be complied with contractors labour Regulations in regard to all matters provided therein.

The Contractors shall comply with the provisions of the payment of wages Act, 1936, Minimu Wages Act, 1948, Workmen's Compensation Act 1923, Industrial Disputes Act, 1947, Maternity Benefit Act 1961 or any modifications there of or any other law relating there to and rules made there under from time to time.

The Contractors shall be liable to pay his contribution and the employees' contribution of the State Insurance Scheme in respect of all labour employed by him for the execution of the contract, in accordance with the provision of "The Employees', State Insurance Act, 1948", as amended from time to time. The Contractors shall apply to the ESI Authorities, get himself registered with them and obtain a code Number. He shall pay the remittances under his code Number only.

The Contractor shall be liable to pay his contribution and the Employees' contribution towards PF as per Provident Fund Rules and Regulations in respect of all labour employed by him for the execution of the contract. The contractor shall apply to the PF Authorities, get himself registered and obtain a code number from them. He shall pay the remittances towards PF under his code Number only.

CONTRACTOR

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The Engineer-in –charge shall on a report having been made by an Inspecting Officer as defined in the Contractors Labour Regulations have the power to deduct from the moneys due to the Contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment of the conditions of the contract for the benefit of workers, non - payment of wages or of deductions made from him or their wages which are not justified by the terms of the contract of non observance of the said contractor’s Labour Regulations.

The Contractors shall indemnify the BHEL against any payment to be made under and for observance of the Regulation aforesaid without prejudice to his right to claim indemnity from this sub-contractors.

In the event of the contractor committing a default or breach of any of the provisions of the aforesaid contractors Labour Regulations, as amended from time to time or furnishing any information or submitting or filling any form/Register/Slip under the provisions of these Regulations which is materially incorrect then on the report of the Inspecting Officers as defined in the Contractors Labour Regulations, the contractor shall without prejudice to any other liability pay to the BHEL a sum not exceeding Rs.50/- as liquidated damages for every default breach or furnishing, making, submitting, filling materially incorrect statement as may be fixed by the Engineer-in-chare and in the event of the contractor’s default continuing in this respect, the liquidated damages may be enhanced to Rs.50/-per day for each day of default subject to maximum percent of the estimated cost of works put to tender . The contractor shall defend the case by himself any action brought in by such Government Agencies for non-compliance of any Labour Regulations and / or reimburse the expense incurred by BHEL in this regard.

The Engineer –in-charge shall deduct such amount from bills or security deposit of the contractor and credit the same to the welfare fund constituted under Regulations. The decisions of the Engineer-in-charge in this respect shall be final and binding.

MODEL RULES FOR LABOUR WELFARE

The Contractor shall at his own expense comply with or cause to be complied with model Rules for Labour Welfare as appended to these conditions or rules framed by Government from time to time for the protection of health and for making sanitary arrangements for workers employed directly or indirectly on the works, In case the Contractors fails to make arrangements as aforesaid the engineer-in-charge shall be entitled do so and recover the cost thereof from the contractor.

CONTRACTOR

EMPLOYER

SAFETY CODE
RESPONSIBILITIES OF THE CONTRACTOR IN RESPECT OF
SAFETY OF MEN, EQUIPMENT, MATERIAL AND ENVIRONMENT

1. Before commencing the work, contractor submit a “SAFETY PLAN” to the authorised BHEL Official. The ‘SAFETY PLAN’ shall indicate in detail the measure that would be taken by the contractor to ensure safety of men, equipment, material and environment during execution of the work. The plan shall take care to satisfy all requirements specified hereunder. The contractor shall submit Safety Plan along with his offer. During negotiations before placing of work order and during execution of the contract BHEL shall have right to review and suggest modification in the Safety Plan. Contractor shall abide by BHEL decision in this respect.
2. The contractor shall take all necessary safety precautions and arrange for appropriate appliances as per direction of BHEL or its authorised officials to prevent loss of human lives, injuries to personnel engaged, and damage to property and environment.
3. The contractor shall provide to its work force and ensure the use of the following personal protective equipment as found necessary and as directed by the authorised BHEL officials:-
 - (i) Safety Helmets conforming to IS-2925: 1984.
 - (ii) Safety Belts conforming to IS-3521: 1983.
 - (iii) Safety Shoes conforming to IS-1989: 1978.
 - (iv) Eye and Face protection devices conforming to IS-8520: 1977 and IS-8940: 1978.
 - (v) Hand and body protection devices conforming to:
 - IS-2573: 1975
 - IS-6994: 1973
 - IS-8807: 1978
 - IS-8519: 1977

All tools, tackles, lifting appliances, material handling equipment scaffolds, cradles, safety nets, ladders, equipment’s etc. used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from time to time as instructed by authorised BHEL official who shall have the right to ban the use of any item.

CONTRACTOR

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All electrical equipment's, connections and wiring for constructions power, its distribution and use shall conform to the requirement of the Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carry out all types of electrical works. All electrical appliances including portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed. The contractor shall not use any hand lamp energized by electric power with supply voltage of more than 24 volts. For work in confined space lighting shall be arranged with power sources of not more than 24 volts.

The Contractor shall adopt all fire safety measures as laid down in the "Code for fire Safety at Construction Sites" issued by the Safety Department of the Construction Management (HQ) of BHEL and as per directions of the authorised BHEL official. A copy of the above referred "Code of Fire Safety at the Construction Sites" shall be made available by BHEL to the contractor for reference, on demand by the contractor, during tendering stage itself.

Where it becomes necessary to provide and/or store petroleum Products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provisions and/or storage in accordance with the rules and regulations laid down in the relevant government acts, such as Petroleum Act, Explosives Act, Petroleum and Carbides of Calcium Manual of the Chief Controller of Explosives, Govt. of India. etc., Prior approval to the authorised BHEL official at the site shall also be taken by the contractor in all such matters.

The contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working when natural daylight may not be adequate for clear visibility.

The contractor shall be held responsible for any violation of statutory regulations local, state or central and BHEL instructions, that may endanger safety of men, equipment, material and environment in his scope of work or another contractor's or agency's. Cost of damages if any, to life and property arising out of such violation of statutory regulations and BHEL instructions shall be borne by the contractor.

In case of a fatal or disabling injury accident to any person at construction sites due to the lapses by the contractor, the victim and/or his/her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL shall have the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.

CONTRACTOR

EMPLOYER

In case of any damage to property by the contractor, BHEL shall have the right to recover cost of such damages from payments from payments due to the contractor after holding an appropriate enquiry.

In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have to recover cost of such delay from payments due to the contractor, after notifying suitably and giving him opportunity to present his case.

If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given a reasonable opportunity to do so; and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorised BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than seven days indicating the steps that would be taken by BHEL.

The contractor shall submit report of all accidents, fires and property damage, dangerous occurrence to the authorised BHEL official immediately after such occurrence, but in any case not later than twelve hours of the occurrence. Such reports shall be furnished in the manner prescribed by BHEL. In addition, the contractor to the authorised BHEL official shall also submit periodic reports on safety from time to time as prescribed.

Before commencing the work, the contractor shall appoint/nominate a responsible officer to supervise implementation of all safety measures and liaison with his counterpart of BHEL.

If safety record of the contractor in execution of the awarded job is to the satisfaction of Safety Department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion the job.

CONTRACTOR

EMPLOYER

CLAUSE 38 OF BHEL GENERAL CONDITIONS OF CONTRACT
INSURANCE OF WORKS AGAINST DAMAGE AND LOSS DUE TO FIRE, STRIKE,
TEMPEST, FLOODS, EARTHQUAKE, RIOT AND AGAINST DAMAGE BY AIRCRAFT

The Contractor shall, within one month after the date of acceptance of the contract, insure the work against loss and damage by fire, tempest, floods, earthquake, riots, strike & against damage by air-craft with an insurance office approved by the Accepting officer from the date of acceptance of work or actual commencement of work whichever is earlier. Such insurance shall be effected in the name of BHEL and shall be for the full value of the contract sum. The contractor shall lodge with the BHEL the policies and receipts of the premiums for such insurance and shall maintain such policies in force until the entire completion of the work as certified by the Senior Engineer.

If the contractor fails to comply with the terms of this condition the Accepting Officer may insure the work and may deduct. The amount of premium from any money that may become payable to the contractor or may at his discretion refuse payment of any advance to the contractor until the contractor shall have complied with the terms of this condition.

Such insurance whether effected by the Accepting Officer or the Contractor shall not be a limit or bar to the liability and obligation of the contractor to complete the entire work in all respects as certified by the Senior Engineer.

In case of such a loss or damage as aforesaid, the money payable under any such insurance shall be received and may be retained by the BHEL until the work is finally completed and shall then be credited to the contractor in the final statement of accounts in the event of the contract not having been previously cancelled under these conditions after taking into account the delay in completion, settlement to his workers for damages, damage to BHEL property etc.

CONTRACTOR

EMPLOYER

SPECIAL CONDITONS OF CONTRACT

1. GENERAL

The special conditions of contract and other contract documents are complimentary to each other and shall be read in conjunction with each other. In case of any conflict of meanings between the special conditions of contract and the BHEL General Conditions of Contract the provisions of the special conditions of contract shall override the corresponding provisions of the BHEL General Conditions of Contract.

2. SCOPE OF WORK

The scope of work includes for the full, final and entire completion of all Civil Engineering works as detailed in specifications and drawings, which forms part of this Contract. The scope of work also includes cleaning/removing all debris beyond 200mtrs. or as stipulated in the item schedule from building location and levelling the areas as per direction of the Engineer-in-charge.

The scope of work under this contract shall cover supply of all materials, labour, tools, plants etc., unless otherwise specified in the specifications, descriptions of items or in foregoing clauses.

3. SITE CONDITIONS

a) Before tendering the Contractor shall get himself/themselves acquainted with site conditions such as the nature of soil likely to be encountered during the course of the work etc.,. The rates quoted by the contractor shall be deemed to have been quoted after getting acquainted with the prevailing site conditions. Initial jungle clearance, stripping of top soil etc., shall also be included in the quoted rates. No claims on the pretext of ignorance of site conditions shall be entertained.

b) The site of work is within EDN Factory premises.

CONTRACTOR

EMPLOYER

1. SIITE FACILITES: -

4.1. LAND: -

The Employer will allot land as available free of cost to the contractor for his office stores. He must maintain the areas allotted to him in a neat and clean conditions as required by the Employer. The contractor shall provide adequate storage and office facilities with approval from the Engineer. The rate quoted by the contractor shall be deemed to include for these and no separate payment will be made towards these.

On completion of work, the site shall be cleaned by the contractor of all materials, temporary debris, rubbish plants and equipment's, belonging to the contractor at no extra cost. The site and surroundings shall be handed over in a neat and clean conditions. In case of any failure by the contractor, the employer will get inside cleared at risk and cost of the Contractor

4.2. POWER AND WATER SUPPLY

Subject to availability water and electricity for the work may be provided by BHEL at one point and the contractor will have to make further arrangements for utilising the supply from other points if required cost there of shall be recovered from the contractors from the bills due to them at the prevailing cost rates worked out by BHEL. At present, the cost rates of recovery by BHEL are Rs.15.00/- per1000 liters of water and Rs.5.90 per unit of Electricity. BHEL is not responsible for any failure of water/electricity supply and the contractor will have to make his own arrangements for the same, without claming any extra rate.

4.3. MACHINERY

The Contractor shall at his own expense, supply all tools, plant and equipment (hereinafter referred to as T & P) required for execution of contract, as specified in the tender documents.

4.4. No. P.O.L. Can be supplied by the Employer.

4. a) The whole of the works shall be executed in perfect conformity with the specifications and drawings. If contractor perform any works in a manner contrary to the specifications and drawings and without reference to the Engineer he shall bear all the costs arising or ensuring there from.

b) All technical documents regarding the construction of works are given in the metric system and work should be carried out according to metric system.

c) The work shall be carried out as per detailed drawings supplied by the employer. Only two copies of the working drawings shall be supplied progressively to the contractor free of cost. The contractor shall keep one set of drawings fully cloth back at his own expenses always available at site for reference of Engineer-in-charge and other representatives.

In case the contractor desires to obtain additional copies of drawings, the same shall be supplied by the Employer on payment of charges as fixed by the Engineer-in-charge.

d) The works shall be carried out as per detailed specifications enclosed with the tender. For items for which there is no mention in the drawings, detailed specification relevant IS specification (latest edition) shall be followed.

e) The contractor shall submit to the Employer for their approval complete drawings, of all temporary works and staging which he may require for carrying out the works shown in the drawings. He shall at the same time if so required by the Employer submit his calculations relating to strength and anticipated deflection in respect of any aforesaid temporary works. He shall also submit for the approval of Employer drawings showing the methods he proposes to adopt for the erection of the various parts of the temporary works. Any modification to the drawings that may be required by the Employer shall be made by the contractor at his own cost. However, notwithstanding the approval of modification required for temporary works, the contractor shall be fully responsible for their efficiency, security and maintenance and for all obligations and risks in regard to such works, specified or implied in this contract and he shall reinstate the same at his own cost, should any mishap or accident occur causing damage or injury there from, subject however, to such clauses of the General conditions as may be applicable in such cases.

CONTRACTOR

EMPLOYER

6.0 BENCH MARKS AND REFERENCE POINTS

The contractor shall construct and maintain proper benchmarks and reference points of the inter section of all main walls, no separate payment shall be made for this and rates quoted deemed to include this cost.

7.0 SAFETY PRECAUTIONS

The contractor shall at times observe the safety code enclosed and make necessary action as required in the tender. In default thereof, the employer may get this done departmentally or through other agencies and recover the cost from the contractor.

The Contractors shall also abide by all the security regulations promulgated from time to time by employer.

8.0 RATES

The rates to be quoted are intended to provide for works duly and properly completed in accorded with the general and special conditions of contract and specifications and drawings together with such alteration and or conditions as may be required / ordered without prejudice to the generality thereof shall include for detail of construction which are obviously and fairly intended and which may not have been specifically referred in these documents and working drawings and but are essential for execution and satisfactory completion of work including those of minor nature and shall be deemed to include and cover internal the followings.

- a) Arrangements for obtaining the clearance wherever required from statutory bodies, regarding license for construction permanent electricity, water supply, and sanitary connections including payment of necessary fees, inspection charges and obtaining financial certificates for using these services. The various items rates quoted in the schedule shall be deemed include the above services and no separate payments shall be made towards these.

- b) The cost of all superintendence and labour materials, tools, plants, equipment's, mobilizing and demobilizing equipment fuel lubricants, fixture, transport charges, temporary and permanent works and quarrying charges, testing, screening, washing, handling of materials, stacking and removal charges, of any rejected materials and water and power arrangements and satisfactory maintenance of the same satisfactory completion of the work intended.

CONTRACTOR

EMPLOYER

- c) All fees, duties, royalties, rent and compensation to owner for surface damage or taxes And impositions payable to local authorities, in respect of land an structure, for all materials supplied for the work or any other duties/expenses for which the contractor may become liable or may be put to under any provision of the law for the purpose of in connection with the execution of the contract including revise payable on the transactions.
- d) Watching and lighting arrangements as required for satisfactory performances.
- e) Settings out of works profiles etc., and of construction repair and up-keep of all centre lines, bench marks and levels and page there of including provisions of masonry/concrete pillars showing the centre line of structure/gridlines and levels and maintenance and protection of the some including providing fencing etc., through out the period of contract.
- f) Brooting, maintenance and removal of temporary works and buildings.
- g) Supply of complete, Moulds, cost of testing of materials etc.
- h) Working in all conditions including in/under water liquid, conditions etc., and shall also include boiling or pumping out water from the foundations, basements or any other sources of whatsoever deslushing and allied operation at any stage of work including all suspension period and delays whatsoever. Cost of curing including pumping and curing water whatever necessary.
- i) In the interest of completion of work within the stipulated time, certain works are to be carried out during the monsoon period also. No separate payment will be made to the contractor for such works and it will be deemed to be included in the contract rates.
- j) Diversion and draining works, protection works, temporary facilities, bridges, gangway.
- k) Work at all depth in foundation below the ground level and in superstructure upto all height above ground level including all lifts and dessents involved at any other place of work and disposed/barrow areas.
- l) Unless otherwise specified in the specification schedule cost of all loads.
- m) Provision of centering, scaffolding, strutting props etc.,
- n) All materials and labour required for fencing in an protection against risk of accidents and for provising necessary/planking strutting with hand rails, gumboots, helmets, safety belts etc., during the progress of work.
- o) All prevention on compensation for tress pass of barrier arrangements for the safetyof the public or employees during the provision of works.

CONTRACTOR

EMPLOYER

- p) Works in all shapes inclined or curved and all sizes as shown or as are required.
- q) Cleaning the site after the completion of work of all debris, left out construction materials, machine equipment's, temporary offices, stores, work shop etc., including microdressing the area in neat and clean shape.
- r) Such other incidental charges or contingencies as may have been provided for in the specifications.

09 LABOUR COLONIES: -

No labour camp will under any circumstances be permitted within the premises.

10 PRICE VARIATION CLAUSE :

The price variation clause as given under shall be followed in Special Conditions of tender.

11. LEAD, LIFT, DEWATERING ETC.,

- a) Unless otherwise specified in the tender schedule, the rates for all items will be deemed to include all leads, lifts and descents involved in the work.
- b) No separate payment will be made for dewatering (including seepage, surface drainage and monsoon water) desludging and allied operations at any stage of the work, and the cost of such operations will be deemed to be included in the contract rates
- c) No separate payment will be made for curing including pumping of curing water where necessary.

12. EXTRA ITEMS

No extra items of work shall be carried out by the contractor other than those authorised to do so in writing by the Engineer. For any such items of work executed as per instructions of Engineer. The rates will be fixed on the basis indicated under clause 50 of BHEL GCC. The schedule of rates to be followed in this case will be CPWD schedule of rates.

CONTRACTOR

EMPLOYER

13. Quantity

The probable quantities of the several items of work are furnished in the schedule of quantities. It must be clearly understood that neither the probable quantities nor the value of individual items nor the aggregate value of the entire work shall be binding on the Employer/Engineer does not in any way assure the contractor or Guarantee that the said probable quantities are correct or that the work will correspond to these. The Employer/Engineer reserve the right to omit, vary or add to the item/work described in the schedule, of quantities and no claim for compensation will be entertaining on this account.

14. Variation/Deviation in quantities

The contractor shall not make any alteration in addition to or omission from the work as described in the tender document except in pursuance of the written instructions of the Engineer-in-charge. No such deviation from the work described in the tender documents shall be valid unless the same has been specifically confirmed and accepted by the accepting officer in writing and incorporated in the contract.

The rates quoted are firm for deviation subject to minimum of (-) 20% and maximum (+) 20% of the total value of work awarded. Deviation beyond the above limits is subject to the standard terms and conditions of BHEL.

15. Materials

(a) Supply by Employer :

Unless otherwise specified, BHEL will not supply any materials.

CONTRACTOR

EMPLOYER

16. SUPPLY OF CEMENT AND STEEL IS TO BE MADE BY CONTRACTOR

17. SUPPLY BY CONTRACTOR

The work is for a completed job including labour and supply of all materials except those otherwise specified in the bid document.

All materials supplied by the contractor according to the contract conditions shall be subject to inspection and passing by the Engineer or his representatives from time to time, the contractor providing all facilities for such instruction free of cost. BHEL officers connected with the contract shall have the power at any time to inspect and examine any stores or materials intended to be used in or on the work, whether on the site or at any factory or workshop or other place where such stores or materials are being fabricated or manufactured or at any place the same are lying and the contractor shall give necessary facilities for such inspection and examination.

The Engineer-in-charge shall be entitled to have tests made of any stores or materials supplied by the contractor shall provide at his own expense all facilities which the Engineer-in-charge may require for this purpose. If at the discretion of the Engineer-in-charge an independent expert is employed to make any such tests his charges shall be borne by the contractor only if the tests disclosed that the said stores or materials are not in accordance with the provision of the contract.

Should the Senior Engineer/Civil Engineer/Civil consider as any time during the construction or reconstruction on prior to the expiry of the Maintenance Period that the stores or materials provided by the contractor are unsound or of quality inferior to that contracted for, or otherwise not in accordance with the contract (in respect where the decision of the Senior Engineer/Civil shall be final and conclusive) the contractor shall on demand, in writing from the Sr.Engineer-civil specifying the stores and demand or materials complained of, notwithstanding that the same may have been inadvertently passed, certified that and paid forth with remove the stores or materials so specified and provide other and suitable stores or materials at his own expense, to the entire satisfaction of the Sr.Engineer/Civil Engineer/Civil and in the event of his failing to do so within a period to be specified by the Senior Engineer/C,E/C, in his demand aforesaid, the Sr.Engineer/Civil Engineer/Civil may replace within the other stores or materials complained of at the risk and expense in all respect of the contractor. The liability of the contractor under this conditions, shall not extended beyond the maintenance period aforesaid except as regards stores or materials which the Sr.Engineer/Civil Engineer/Civil shall have previously given notice to the contractor to replace (Maintenance, period for any work under this organisation will be six months from the date of actual completion of the particular work and handing over to BHEL).

CONTRACTOR

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18.0 INTERRUPTION TO THE WORKS: -

In quoting the rates/prices the Contractor should take in to account the fact that due to the design or other stipulations at site, or the necessity to follow a particular sequence of overall construction operation, or non-supply of particular drawings, or the connected work or other reasons, interruptions are likely to be encountered in a work of this nature and magnitude. No claims for such interruptions will be entertained on any account.

EXTENSION OF TIME OR PENALTY/LIQUIDATED DAMAGES

Extension of time or penalty/liquidated damages as the case may be will be determined as stipulated in clause 7,9 and 41 of BHEL General Conditions of Contract.

19.0 COMPLETION OF WORK AND MEASUREMENT

- a) All work shall be carried out according to authorised dimensions and measurement will be restricted to those authorised dimension even though the Contractor may for convenience of this work exceed the authorised dimensions.
- b) All work shall be measured in accordance with the applicable standard method of measurements prescribed by the Indian Standard Institution (1200 latest edition) unless otherwise specified.
- c) The Contractor shall admit for technical inspection, works which are likely to be embedded or covered by other works and have the necessary measurement books and certificates to this effect duly signed by the Engineer before the works are covered.
- d) On completion of the work, the Contractor must submit to the Engineer the following documents for passing of works.
 - i) A copy of the working drawing showing thereon all addition and alterations in the process of execution.
 - ii) A certificate for embedded and covered up works as in sub-para (C) above
- e) The authorised Contractors representative and a representative of the Employer shall jointly sign a certificate of handing over any completed work and date of signature of that certificate will be that the date from which the maintenance period of that unit will reckoned.
- f) Notwithstanding the above insurance cover has to be taken by the contractor for the full value of work as also for the duration of the contract period., 50% of the Security Deposit shall be released only on the total completion of the building and handed over to BHEL to their satisfaction. Remaining 50% of Security Deposit shall be released subject to the stipulation in our GCC after 6 months from the date of completion of the building.

CONTRACTOR

EMPLOYER

MAINTENANCE OF WORK

The contractor will be responsible for the maintenance of works during the period of construction until the various items are taken over, and for a further period of six months, from the date of taking over.

If the contractor fails to maintain the building satisfactorily, it will be got done by other agency and cost towards such maintenance together with departmental charges will be recovered from the his bills/dues.

20.0 SECURITY DEPOSIT

Upon acceptance of the tender, the successful tenderer shall within the time specified in the letter of intent

deposit with the Bharat Heavy Electricals Ltd.,

Successful tenderer is to be remitted Security Deposit The rate of Security Deposit will be as below:

Upto Rs.10 lakhs	10%
Above Rs. 10 lakhs upto Rs.50lakhs	1 lakhs + 7.5% of the amount exceeding Rs. 10 lakhs
Above Rs.50 lakhs	Rs. 4 lakhs + 5% of the amount exceeding Rs. 50 lakhs

The contractor should submit the Security Deposit before the start of the work.

- i) Cash (as permissible under the income Tax Act).
- ii) Pay order, demand draft in favour of BHEL.
- iii) Local cheques of scheduled banks, subject to realization.
- iv) Securities available from Post Offices such as National Saving Certificates, kisan Vikas Patras etc.,
(Certificate should be held in the name of contractor furnishing the security and duly pledged in favour of BHEL and discharged on the back)
- v) Bank Guarantee from scheduled Banks/Public financial Institutions as defined in the companies Act subject to a maximum of 50% of the total security deposit value. The balance 50% has to be remitted either by cash or in the other form of security. The Bank Guarantee format should have the approval of BHEL.
- vi) Fixed Deposit Receipt issued by scheduled Banks/Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL, duly discharged on the back.
- vii) Security Deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be collected before start of the work and balance 50% may be recovered from the running bills.

CONTRACTOR

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- viii) EMD of the successful tenderer shall be converted and adjusted against the Security Deposit.
- ix) The Security Deposit shall not carry any interest.

NOTE: Accepting of Security Deposit against Sl.No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour on BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

For extra items of work and deviated quantities, security deposit will be recovered at 10% of the value of deviated amount. The security deposit will be released as stipulated under clause 16(IV) of GCC.

21.0 RUNNING ACCOUNT PAYMENTS

During execution of work, monthly payments of all works in place will be made on the basic measurements recorded in measurement sheet/book in respect of items executed but no claim on the account will be entertained, if for any reason payments are not so made.

ADVANCE

- 22.0 75% of the value of imperishable materials brought to site for incorporation in the work subject to production of supporting vouchers indicating the value of materials and hypothecation of the company.

The advance shall be paid subject to the materials so brought to site are adequately stored and/or protected against damage by weather or other causes but which not at the time of payment of advance incorporated in the work. Payment of such advance however, shall be recovered from the bills pro-rata according to the quantity billed for. No other advance will be paid.

No such materials shall be removed from the work site by the contractor without the written permission of the Engineer-in-charge.

23.0 STATUTORY DEDUCTION TOWARD INCOME TAX WILL BE MADE as per rules.

- 24.0 In respect of all labour directly or indirectly employed on the work by the Contractor, the Contractor shall comply with the provisions of the contract labour (Regulation and Abolition) Act 1970 or any amendment thereof and all legislations and rules of the State and or Central Government or other Authority, framed from time to time governing the protection of health, sanitary arrangements, wages, welfare and safety for labour employed on building and construction works. The rules and other statutory obligations with regard to fair wages, welfare and safety measures, maintenance of the register etc., will be deemed to be part of the contract.

CONTRACTOR

EMPLOYER

26.0 The Contractor is required to take an insurance for all workers employed on works towards payment for workmen compensation. The insurance has to be taken out with in 15 days of the award of work and has to be produced at the time of signing agreement. Half (1/2%) shall be deducted for every bill if the contractor fails to produce a proof of having taken such an insurance to cover his workmen.

However the contractor shall be fully responsible for all the consequences arising out of such default. This may also be read with clause 20 of BHEL GCC.

27.0 **TIME OF COMPLETION**

The date of commencement of work shall be counted from the date of handing over the site to the contractor. The contractor shall plan the work in such a manner that all roofs are laid before the start of the rainy season and the work is not hampered due to rain. It may be clearly understood that time is the essence of the contract and the entire work should be completed within the time imposed in the tender document letter of intent.

28.0 The Contractor has to pay the Works Contract Tax (Under Sec.19A of the KST Act 1957) of their own on Monthly basis.

29.0 The management's of BHEL shall be at liberty to terminate the contract by issuing a month's notice to the contractor without assigning any reason what so ever. As regards unsatisfactory performance or non compliance with any of the terms & conditions of the contract by the contractor. The management of BHEL shall have the right to terminate the contractor forthwith without notice & rearrange the balance work through other agencies at the risk & cost of the contractor & under such circumstances, the Earnest Money Deposit/Security Deposit paid by the contractor shall stand forfeited.

CONTRACTOR

EMPLOYER

LIST OF INDIAN STANDARD

Following is the list of various Indian Standards,
Relevant to the Civil Engg., work

1. EARTH WORK

IS 1200-1974, Method Part I Earthwork, Measurement of Building, and Civil Engineering works, and chapter No.2 of CPWD/specification 1977.

2. MORTAR (PLASTERING)

- 1) IS 2394-1965. Code of practice for application of lime plaster finish.
- 2) IS 1661-1972. Code of practice for application of cement lime plaster finish.
- 3) IS 2402-1963. Code of practice for external rendered finishes.

3. CONCRETE WORK & RCC WORK

- 1) IS 456-1964. Code of practice for plain and reinforced concrete.
- 2) IS 432(part 1) –1966. Mild steel and medium tensile steel bars.
- 3) IS 1766-1866-Cold twisted steel bars for concrete reinforcement.

4. BRICK WORK

- 1) IS 2212-1962-Code of practice for brick work.

5. STONE WORK

- 1) IS 1597-code of practice for construction of stone masonry.

6. MARBLE WORK

- 1) IS 1124-1974 Methods of test for water absorption of natural building works.

CONTRACTOR

EMPLOYER

7. STEEL WORK

- 1) IS 800-1962-Code of practice for use of structural steel in general building construction.
- 2) IS 1308-1975-Steels doors, windows and ventilators
- 3) IS 1081-1960-Code of practice for fixing glazing of metal (steel & aluminium doors, windows & ventilators)
- 4) IS 1161-1968-Steel tubes for structural purposes.
- 5) IS 4351-1967-Steel doorframes.
- 6) IS-6245-5245-1971-Metal rolling shutters and rolling grills.

8. FLOORING

- 1) IS 2114-1962-Code of practice for laying in situ tarrazo floor finish.
- 2) IS 2571-1971-Code of practice for in situ cement concrete flooring.
- 3) IS 5313-1969-code of practice of lying of flexible P.V.C. sheet & tiles flooring.

9. ROOFING

- 1) IS 3007(pt-I)-1964-code of practice of lying of corrugated cement sheets.

10. FINISHING

- 1) IS 133-1975-Enamel, Interior (a) under coating (b) Finishing colour as required.
- 2) IS 348-1966-French Polish.
- 3) IS 427-1965-Distemper, dry colour as required.
- 4) IS 425-1969-Distemper, oil emulsion as required.
- 5) IS 5410-1969-Cement paint, Colour as required.
- 6) IS 5011 (pt.1)-1969-Plastic emulsion paint for interior use.
- 7) IS 6278-1971 code of practice for white washing & colour washing.

11. DEMOLISION AND DISMANTILING.

- 1) IS 1200 (pt XVIIIO)-1974-Method of measurements of demolition and dismantling.

12. SAFETY CODE

- 1) IS 5915-1970-Safety code for construction including use of hot bituminous materials.
- 2) IS 4130-1970-Safety code for demolition of building.
- 3) IS 3754-1966-Safety code for excavation works.
- 4) IS 3606(Pt-I)-1966-Safety code for Scaffolds.

CONTRACTOR

EMPLOYER

APPROVED BRAND OF PAINTS TO BE USED

1. DISTEMPER

BRAND: - ASIAN, BERGER, BRITISH PAINTS, JENSON & NICHOLSON, NEROLAC or Equivalent.

2. SYNTHETIC ENAMEL PAINT

ASIAN (APCOLITE SHILIMAR, BRITISH, JENSON & NICHOLSON, NEROLAC, BERGER or Equivalent

3. PLASTIC EMULSION

BRITISH, NEROLAC, JENSON & NICHOLSON, BERGER or Equivalent.

4. WATER PROOF CEMENT PAINT

SUPER SNOWCEM or Equivalent.

A) DISTEMPERING ON NEW SURFACE. (OILBOUND)

- | | | |
|----------------------|-------|---------------------------|
| 1. COAT OF PRIMER | | 0.081 Ltrs/Sqm (one coat) |
| 2. COAT OF DISTEMPER | | 0.15 kg/Sqm (2 coats) |

DISTEMPERING WITHOUT PRIMER

- | | | |
|-------------|-------|---------------------------|
| FOR 1 COAT | | 0.10 Kg/Sqm (For 1 coat) |
| FOR 2 COATS | | 0.20 Kg/Sqm (For 2 coats) |

B) SYNTHETIC ENAMEL PAINT.

- | | | | |
|-----------------------------|--------------|-----------------|------------------------------|
| a) ON NEW SURFACE | ... PRIMER | | 0.09 Litre/Sqm (For 1 coat) |
| | ENAMEL PAINT | (2 COATS) | 0.15 Litre/Sqm (For 2 coats) |
| b) ON SURFACE | | | |
| 2 COATS WITHOUT PRIMER | ... | | 0.20 Litre/Sqm |
| 1 COAT | | | 0.10 Litre/Sqm |
| c) WATER PROOF CEMENT PAINT | | | |
| 1 COAT | ... | | 0.18 Kg/Sqm |
| 2 COAT | ... | | 0.30 Kg/Sqm |
| d) PLASTING EMULSION PAINT: | | | |
| 2 COATS OF PLASTIC EMULSION | | | 0.121 Litre/Sqm |
| 1 COAT OF PLASTIC EMULSION | | | 0.073 Litre/Sqm |

ON NEW SURFACE

- | | | |
|---------------------------|-----|-----------------|
| 1 COAT PLASTIC FIX PRIMER | ... | 0.081 Litre/Sqm |
| 2 COATS PLASTIC EMULSION | ... | 0.121 Litre/Sqm |

However the co-efficient should be not less than the manufacturer's recommendations

CONTRACTOR

EMPLOYER

LIST OF MATERIALS OF APPROVED BRAND OF MANUFACTURERS

1. Cast Iron Pipes : a) Indo-Swedish Pipe Mfg. Co.ltd.,]
b) Bengal Iron Foundry
c) Hindustan Engineering Products or
Equivalent.
2. G.I.Pipes : TATA, Zenith, Surya prakash or Equivalent
3. G.I.FITTINGS : R Brand, TATA or Equivalent
4. C.P.FITTINGS : Ark ESS ESS, plumber
Driploss or Equivalent
5. Gun Metal Valves : Leader
Neta or Equivalent.
6. W.C.pans, wash basins,) :
Toilet paper holder,) Hindustan, parry were
Soap trays, Urinals and) Cera Neycer.
Auto Flushing tanks.)
7. W.C.Seats : Commander
Bestolite or Equivalent
8. Flushing Cisterns : Hindustan, Sea shell or Equivalent
9. Mirrors : Atul Glass Works, warrior or
equivalent.
10. Stoneware Pipes : Dalmia
Mysore Stoneware Pipe & Co.,
Andhra Pradesh Stoneware Pipe company
11. Door Shutters : Kutty Flush Doors and furnishers Co.,
Commercial ply teak Mysore Plywood or equivalent
Veneered flush shutters Nikky
With ISI make. Assam or Equivalent

CONTRACTOR

EMPLOYER

12. Door framed cold rolled framed sheet sections conformed sheet to IS 4351-1976. : NSL section T.I. Section or equivalent.
13. Commercial fly/teak Veneered ply block board. : Anchor, Mafatlal, Arch, National or equivalent.
14. Steel windows with shutter frame. : 1) M/s Madhy Industries
2) M/s Eswari Enterprises, Rajajinagar
3) M/s Chamundi Fabricators & Engg.,
4) M/s Prabhu and Co., (ACEW)
15. Rolling shutters : Kohinoor,
Hericles or Equivalent.
16. Bottle traps. : a) Orient &
b) ARK or equivalent.
17. PVC pipes : a) Oriplast
b) Prince
c) Premier
d) Finolex
18. Aluminium Sections : a) Indal
b) Zindal or Equivalent
19. Cement : a) Zuary
b) ACC
c) Cormandala
d) L&T
e) Birla or equivalent
20. Reinforcement steel : a) TISCO
b) SAIL
c) VISL

N.B All equivalent materials shall have to be approved from the Engineering-in charge before being used.

CONTRACTOR

EMPLOYER

FORM OF TENDER

Having examined the invitation to bid, Instructions to Bidder, General conditions of contract, special conditions, specifications tender schedule, contract drawings and other documents for the above work, we the undersigned, offer to construct, erect complete and maintain the whole of the said in conformity with the said bid documents on the terms and conditions and under the provisions set out or called for in the contract documents at the rates listed in the schedule of unit prices or else wherein the contract documents.

We undertake if our bid is accepted, to commence the works within 7 days from the date of issue of award and to complete and delivery the whole of the works comprised in the contract as per the time schedule agreed to the contract document.

We agree to abide by this bid for the period of three months from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before expiry of the period.

Until and unless a formal agreement is prepared and executed this bid, together with your award thereof shall constitute a binding contract between us.

CONTRACTOR

EMPLOYER

CLAUSE 58 OF GENERAL CONDITIONS OF CONTRACT

ARBITRATION:

Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works, or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Executive Director/General Manager of BHEL and if the Executive Director/General Manager is unable or unwilling to act to the sole Arbitration of some other person appointed by the Executive Director / General manager willing to act as such Arbitrator. There will be no objection if the arbitrator so appointed is an employer of BHEL or an employer of any other unit of BHEL and that he had to deal with the matters to which the contract relates and that in the course of its duties as such he had expressed views on all or any of the matters in dispute or difference. The Arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason, such Executive Director / General Manager as aforesaid at the time of such transfer vacation of office or inability to act, shall appoint another person to act as arbitrator in accordance with the terms of the contract. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor. It is also a term of this contract that no person other than a person appointed by such Executive Director/General Manager or an employee appointed as arbitrator as aforesaid should act as arbitrator and the arbitrator shall give reasons for the award.

Subject as aforesaid the provision of the Arbitration Act, 1940 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the arbitration proceeding under this clause.

CONTRACTOR

EMPLOYER

It is a term of a contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

The arbitrator(s) may from time to time with consent of the parties extend the time, for making the publishing the award.

The work under the contract shall, if reasonably possible, continue during the arbitration proceeding and no payment due or payable to the contractor shall be withheld on account of such proceedings.

The arbitrator shall be deemed to have entered on the reference on the date he issued notice to both the parties fixing the date of the hearing.

The arbitrator shall give a separate speaking award in respect of each dispute or difference referred to him.

The venue of arbitration shall be such place as may be fixed by the arbitrator in his sole discretion.

The award of the arbitrator shall be final, conclusive and binding on all parties to this contract.

CONTRACTOR

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SPECIAL CONDITIONS OF TENDER

1. The successful bidder should open local office at Bangalore City for easy interactions/ monitoring of work at site.
2. Tenderers should not disclose any price bid details/discounts in the technical data.

Clause 10C: Payment on Account of increase in Prices/Wages due to Statutory Order (S)

If after submission of the tender, the price of any material incorporated in the works (not being a material supplied from the Engineer-in-charge's stores in accordance with clause 10 thereof) and/or wages of labour increases as a direct result of the coming into force of any fresh law, or statutory rule or order (but not due to any changes in sales tax/VAT) and such increase in the price and/or wages prevailing at the time of the last stipulated date for receipt of the tenders including extensions if any for the work, and the contractor there upon necessarily and properly pays in respect of that material (incorporated in the works) such increased price and/or in respect of labour engaged on the execution of the work such increased wages, then the amount of the contract shall accordingly be varied, and provided further that any such increase shall not be payable if such increase has become operative after the stipulated date of completion of work in question.

If after submission of tender, the price of any material incorporated in the works (not being a material supplied from the Engineer-in-charge s stores in accordance with Clause 10 thereof) and /or wages labour is decreased as direct result of the coming in to force of any fresh law or statutory rules or order but not duo to any charges in sales tax /VAT) and such decrease in the prices and/or wages prevailing at the time of receipt of the tender for the work. Government shall in respect of materials incorporated in the works (not being materials supplied from the Engineer-in-charge of stores in accordance with Clause-10 hereof) and/or labour engaged on the execution of the work after the date of coming into force of such law statutory rule or order be entitled to deduct from the dues of the contractor, such amount as shall be equivalent to the difference between the prices of the materials and/or wages as prevailed at the time of the last stipulated date for receipt of tenders including executions if any for the work and the prices of materials and/or wages of labour on the coming into force of such law, statutory rule or order.

The contractor shall, for the purpose of this condition, keep such books of account and other documents as are necessary to show the amount of any increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of the Government, and further shall, at the request of the Engineer-in-charge may require any documents so kept and such other information as the Engineer-in-charge may require.

The contractor shall, within a reasonable time of his becoming aware of any alteration in the price of any such material and/or wages of labour, give notice thereof to the Engineer -in-charge stating that the same is given pursuant to this condition together with all information relating thereto which he may be in position to supply.

CONTRACTOR

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Clause 10CA: Payment due to variation in prices of materials after receipt of tender

If after submission of the tender, the price of materials specified in Schedule F increases/decreases beyond the price (s) prevailing at the time of the last stipulated date for receipt of tenders (including extensions, if any) for the work, then the amount of the contract shall accordingly be varied and provided further that any such variations shall be effected for stipulated period of contract including the justified period extended (under the provisions of Clause of the contract without any action under relevant Clause of contract)

However for work done/during the justified period extended as above, it will be limited to indices prevailing at the time of stipulated date of completion or as prevailing for the period under consideration, whichever is less.

The increase/decrease in prices shall be determined by the All India Wholesale Price Indices of Materials as published by Economic Advisor to Government of India, Ministry of Commerce and Industry and base price for materials as issued under the authority of Director General (Works),

CPWD as valid on the last stipulated date of receipt of tender, including extension if any and for the period under consideration. In case, price index of a particular material is not issued by Ministry of Commerce and Industry, then the price index of nearest similar material as indicated in Schedule „F shall be followed. The amount of the contract shall accordingly be varied for all such materials and will be worked out as per the formula given below for individual material:-

Adjustment for component of individual material

$$V = P \times Q \times \frac{CI - CI_0}{CI_0}$$

Where,

V= Variation in material cost i.e. increase or decrease in the amount in Rupees to be paid or recovered.

P = Base price of material as issued under authority of DG (W), CPWD valid at the time of the last stipulated date of receipt of tender including extensions, if any.

Q = Quantity of material used in the works since previous bill.

CI0 =

All India Wholesale Price index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

CI = All India Wholesale Price Index for the material for period under consideration as published by Economic advisor to Government of India, Ministry of Industry and Commerce.

(In respect of the justified period extended under the provisions of the contract without any action, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less shall be considered.) provided always that provisions of the preceding Clause 10 C shall not be applicable in respect of Materials covered in this Clause.

CONTRACTOR

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Mobilization Advance

Mobilization advance not exceeding 5% of the estimated cost put to tender or 5% of tender value whichever is less will be given, if requested by the contractor in writing within one month of the order to commence the work. The advance will be released against executing a Bank Guarantee Bond by the contractor from a Scheduled Nationalized Bank as specified by the Engineer-in-charge for the full amount of such advance is released. The contractor has to furnish a proof of the satisfactory utilization of the advance released by the company.

Interest & Recovery

The mobilization advance above bear simple interest at the prime lending rate of SBI plus 2% per annum and shall be calculated from the date of payment to the date of recovery, both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced will be recovered by installments through deduction from the contractor's bills at 10% of the bill value till the full advance is recovered. The said Bank Guarantee for advances shall initially shall be made for the full amount and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest.

Reverse Auction

BHEL reserves the right to go for reverse auction at any point of time before opening of Price Bid. Bids with non-acceptance of reverse auction will be liable for rejection. Opening of Price Bid at discretion of BHEL. BHEL shall be at liberty to cancel the tender at any time, before ordering, without assigning any reason.

CONTRACTOR

EMPLOYER

ANNEXURE –I

GUIDELINES FOR REVERSE AUCTION PROCEDURE

Against this enquiry for the subject items/system with detailed scope of supply as per enquiry specifications, BHEL-EDN proposes to resort to “REVERSE AUCTION PROCEDURE” i.e., ONLINE BIDDING ON NETWORK, before finalizing the purchase order on technically competent bidders as per the guidelines given below:

1. Reverse auction procedure shall be applicable for 2 part bid tenders only.
2. For the proposed reverse auction, technically and commercially acceptable bidders only shall be eligible to participate, BHEL will engage the services of a service provider, having network all over the world. The online bidding can be done from the vendor’s respective offices on their computers with internet facility or at any of the cyber café, for which services provider’s representative will provide all necessary training and assistance before commencement of on line bidding. Training is free of cost.
3. Vendors have to fax the compliance form in the prescribed format (provided by Service provider) before start of reverse auction. Without this, Reverse Auction will not be started. Delay in fixing the above will lead to disqualification.
4. BHEL will send the Auto formulated EXCEL sheet which will help to arrive at “Total Cost to BHEL” like Basic Materials Cost, Packing & forwarding charges, Excise duty, Sales tax/VAT, Freight charges, Insurance (by BHEL), Service Tax for Service,(-) ED disclaimer if any, loading factors (for non-compliance to BHEL standard Commercial terms & conditions) for each of the vendor to enable them to fill-in the price and keep it ready for keying in during the auction.
5. Reverse Auction will be conducted on mutually agreed schedule and time.
6. After Reverse Auction is conducted, successful bidder has to FAX the filled- in Excel sheet showing the final value accepted in Reverse Auction with breakup of each element as indicated in SI No.4 above to the service provider within 48 hours of auction without fail.

Note: No Charges are allowed in rate of excise Duty, Sales Tax, Freight, Insurance, Service Tax and Loading factors after auction is completed.

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7. After the reverse auction is conducted, the bidder whose price is lowest (total cost to BHEL, after considering all factors as per enquiry including loading factors for deviations to BHEL standard Commercial Terms & conditions), BHEL will process the tender as per BHEL purchase norms. Purchase order will be issued without loading factors for deviations.
Note : BHEL will also reserve the right to open the sealed price offer submitted by the vendors for comparison purpose, if deemed necessary, without any intimation to the technically and commercially accepted bidders.
8. In case BHEL decides not to go for Reverse Auction procedure for this tender enquiry, the Price Bids and Price impacts (if any) already submitted and available with BHEL shall only be opened as per BHEL's standard practice without seeking anymore price impacts on account of BHEL not going for Reverse Auction. Hence please quote your best lowest price in first instant itself.
9. Training by service provider will be given only for the subsequent reverse auction. Training will not be given for a company which has already taken training for the FIRST REVERSE AUCTION conducted by BHEL-EDN, Bangalore.
10. **Activities involved in Reverse Auction:**
 - a) BHEL will inform the vendor in writing, the Service provider's information to enable them to contact & get trained. Along with above information Business rules/policy also will be sent.
 - b) Vendors have to contact Service provider and send Compliance form for having understood Reverse Auction procedure and ready for auction.
 - c) BHEL will send the Auto formulated Excel sheet (blank format without prices) as mentioned in SI No.4 above to the respective vendors.
 - d) Vendors have to fill-in the Excel sheet (provided by BHEL) including loading factors and get ready for reverse auction.
 - e) Date & Time of reverse Auction and Website address will be intimated by Service provider.
 - f) Bid decrement will be indicated in the website after the Sealed bid is over and before start of Reverse auction.
 - g) Vendors will have to key-in the "Total cost to BHEL" (as worked out in the Excel sheet mentioned in SI No.4 above) in the "Sealed Bid" of the Reverse Auction within specified time duration of 20 to 30 minutes. After "Sealed Bid" auction, the lowest bidders value or BHEL's start bid price will be the starting bid value for the commencement of Reverse auction(English Reverse).

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- h) At the end of Reverse auction time (English Reverse), the lowest bidder will be known on the network.
 - i) Successful bidder has to fax filled-in EXCEL sheet showing the final value accepted in the Reverse auction with breakup of each component within 48 hours of completion of the Reverse Auction without altering any of the terms to the service provider. Any alterations will be taken as sabotaging the tender process and will invite disqualification of vendor to conduct business with BHEL for the period of 2 Years.
 - j) The loading factors for non-conformance to BHEL standard commercial terms are only for arriving at lowest bidder. In the event of purchase order, same will be issued without Loading factor values indicated in EXCEL sheet. We repeat PO, will be issued for scope of Supply + Packing & Forwarding charges if any, Excise duty, Sales tax, Service tax for service and Freight Insurance. Insurance will be to BHEL account.
11. This tender BHEL-EDN Proposes to resort to (Reverse Auction Procedure) that is online bidding on network to finalize the tender on Technically and commercially Competent Vendor.

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ANNEXURE –II
ELECTRONIC FUNDS TRANSFER (EFT) OR
PAYLINK DIRECT CREDIT FORM

Please Fill Up the form in CAPITAL LETTERS only:

TYPE OF REQUEST (Tick one): CREATE _____ CHANGE: _____

BHEL Vendor/Supplier Code:

Company Name:

Permanent account Number(PAN):

Address:

City: _____

PINCODE

STATE

Contact Person(s)

Telephone No:

Fax No:

E-Mail-Id:

1.Bank Name:

2.Bank Address:

3.Bank Telephone No:

4.Bank Account no:

5.Account Type: Saving/Cash Credit

6.9Digit Code Number of Bank and branch

Appearing on MICR cheque issued by Bank

7.Bank Swift Code (applicable for EFT only)

8.Bank IFSC Code(applicable for RTGS)

9.Bank IFSC Code (applicable for NEFT)

CONTRACTOR

EMPLOYER

I here certify that the particulars given above are true, correct and complete and that I, as a representative for the above named Company, hereby authorize BHEL,EDN, Bangalore to electronically deposit payments to the designated bank account. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold BHEL/Transferring Bank responsible. This authority remains in full force until BHEL, EDN Bangalore receives written notification requesting a change or cancellation. I have read the contents of the covering letter and agree to discharge the responsibility expected of me as a participant under ECS/EFT.

Date:

Authorised Signatory:

Designation:

Telephone No. with STD Code

Company seal

BANK CERTIFICATE

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

Date:

Place:

(.....)

Signature

Please return completed from along with a blank cancelled cheque or photocopy thereof to:

Bharat Heavy Electricals Ltd.,

Attn:

Electronics Division, Mysore Road,

BANGALORE -560026

CONTRACTOR

EMPLOYER

**BHARAT HEAVY ELECTRICALS LTD
ELECTRONICS DIVISION
MYSORE ROAD. BANGALORE- 560026**

PART –II - PRICE BID

To be submitted in separate sealed cover

NAME OF WORK: CONSTRUCTION OF HR & IT BLOCK INSIDE THE FACTORY PREMISES

Special Instructions

(Schedule –F)

- Contractor has to procure Structural & Reinforcement steel from SAIL, TISCO, VISL or other ISI brand approved by BHEL.
- Contractor has to procure ISI brand 43/53 grade cement of ACC, Ultratech, Zuari, Birla, Rassi, Coramondal or other ISI brand approved by BHEL.
- Basic prices fixed by CPWD for steel, cement & other materials considered are as specified below:
 - a) Cement - Rs 5085.00/MT
 - b) Steel
 - i) Reinforcement (TMT) - Rs 35030.00/MT
 - ii) Structural - Rs 35877.50/MT
 - c) Aluminum sections - Rs 220.35/Kg
 - d) 12 mm prelaminated particle board
 - i) One side decorated - Rs 672.35/Sqm
 - ii) Both side decorated - Rs 706.25/Sqm
- However the rates fixed by CPWD as on date of Tender Submission will be considered to derive the basic price of the materials to operate PVC clause.

CONTRACTOR

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The PVC clause will be as per clause 10CA of CPWD manual-2007 formula as specified.

FORMULA AS PER CLAUSE 10CA:

$$V = P \times Q \times \frac{CI - CI_0}{CI_0}$$

Where,

V= Variation in material cost i.e. increase or decrease in the amount in Rupees to be paid or recovered.

P = Base price of material as issued under authority of DG (W), CPWD valid at the time of the last stipulated date of receipt of tender including extensions, if any.

Q = Quantity of material used in the works since previous bill.

CI₀ = All India Wholesale Price index for the material as published by the Economic Advisor to Government of India, Ministry of Industry and commerce as valid on the last stipulated date of receipt of tenders including extensions, if any.

CI = All India Wholesale Price Index for the material for period under consideration as published by Economic advisor to Government of India, Ministry of Industry and Commerce. (In respect of the justified period extended under the provisions of clause 5 of the contract without any action under clause 2, the index prevailing at the time of stipulated date of completion or the prevailing index of the period under consideration, whichever is less shall be considered.)

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SCHEDULE

NAME OF THE WORK : CONSTRUCTION OF HR&IT BLOCK INSIDE THE FACTORY PREMISES

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
1	Demolishing lime concrete and disposal of material within 50 mtrs lead at all heights & levels	CUM	80		
2	Dismantling tile work in floors and roofs laid in cement mortar including stacking materials within 50 mtrs lead for thickness of tiles 10 mm to 25 mm. Contractor has to dismantle WPC tiles from roof mosaic tiles any types of tiles as per the direction of Engineer-in-charge at all heights & levels	SQM	800		
3	Demolishing cement concrete including disposal of material within 50 mtrs lead in (1 : 3 : 6) or richer mix	CUM	80		
4	Demolishing RCC work including stacking of steel bars and disposal of unserviceable material with in 50 mtrs lead at all heights & levels	CUM	152		
5	Demolishing brick work including stacking of serviceable materials and disposal of unserviceable materials within 50 mtrs lead in cement mortar at all heights & levels	CUM	332		
6	Demolishing stone rubble masonry including stacking of serviceable material and disposal of unserviceable material within 50 mtrs lead in cement mortar	CUM	318		
7	Dismantling Doors, Windows, clerestory steel / wood windows, MS Doors, Rolling shutters (steel) at all heights & levels including chowkhats, architrare hold fasts etc complete stacking within 50 mtrs lead				
a	Area 3.00 SQM & below.,	Each	65		
b	Area beyond 3 SQM	Each	2		
8	Dismantling steel work in built up sections in angles, tees flats & channels including all gusset plates, bolts, nuts, MS frames / ladders / supports / beams etc., cutting rivets, welding etc., including all labours at all heights and levels	Kg	1000		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
9	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the materials within 50 mtrs lead of asbestos sheet	SQM	5		
10	Dismantling wooden / aluminium partition boarding in lining of walls and partitions, including supporting members and stacking within 50 mtrs lead at all heights / floors	SQM	168		
11	Dismantling C I or asbestos rain water pipes & fittings and clamps including stacking of the materials within 50 mtrs lead for 100 mm dia pipe and any diameter	RM	28		
12	Dismantling GI pipes (external work) including excavation and refilling trenches after taking out the pipes including stacking of pipes within 50 mtrs lead,				
a	15 to 40 mm nominal bore	RM	50		
b	Above 40 mm nominal bore	RM	50		
13	Dismantling of wash basin, water closet ITWC, ETWC, Urinals etc., as per the directions of Engineer-in-charge	Each	9		
14	Collecting conveying of debris / building rubbish, earth and excavated rocks etc., complete from factory premises to outside upto 20 kms lead including loading, unloading, all labours, hire charges of machinery etc., complete	CUM	3241.60		
15A	Earth work in excavation over areas (Exceeding 30 cm in depth, 1.50 mtrs in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 mtrs and lift upto 1.5 mtr, disposed earth to be levelled and neatly dressed in all type of soil	CUM	1798.00		
B	...do--- earth work in soft rock	CUM	375.00		
C	...do--- earth work in hard rock	CUM	300		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
16	Filling available excavated earth (excluding rock) in trenches plinth, sides of foundations etc., in layers not exceeding 20 cm in depth consolidating each deposited layer by ramming and watering, lead upto 50 mtrs and lift upto 1.50 mtr	CUM	359		
17	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work at all levels below foundation and for flooring concrete (1:4:8)	CUM	313		
18	Providing and laying in position machine batched machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, excluding the cost of centering, shuttering finishing and reinforcement including admixtures in recommended proportions (as per IS 9103) to accelerate / retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge for the following grades of reinforced cement concrete at all heights & floors.				
A	M 25 grade RCC retaining wall with ready mixed concrete	CUM	15		
B	M 25 grade RCC footings	CUM	600		
C	M 25 grade RCC Columns	CUM	164		
D	M 25 grade RCC Beams	CUM	610		
E	M 25 grade RCC Roof Slab with RMC (Ready Mixed Concrete)	CUM	540		
F	M 25 grade RCC Lift Wall	CUM	45		
G	M 25 grade RCC Stair Case	CUM	48		
H	M 25 grade RCC Cantilevers	CUM	10		
I	M 25 grade RCC Chajjas and Facia / Fins	CUM	41		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
19	Centering and shuttering including strutting, propping etc., and removal of Form for at all heights and levels for				
A	Retaining walls (any thickness) including attached pillasters, buttresses, plinth and string courses etc.,	SQM	150		
B	Footing, foundations, bases of columns etc for mass concrete	SQM	768		
C	Columns, pillars, piers, abutments, posts and struts	SQM	1152		
D	Lintels, Beams, plinth beams, girders, bressumers and cantilevers	SQM	5139		
E	Roofs, Suspended floors, landings, balocnies & access platform	SQM	4096		
F	Lift walls at all heights & levels	SQM	225		
G	Staircases (excluding landings)	SQM	273		
20	Providing and laying in position reinforcement for RCC work including straightening, cutting, bending, placing in position and binding for bars with 16 gauge G I wires welding of reinforcement where required, providing cover to reinforcement all complete in THERMO MECHANICALLY TREATED BARS	Kg	180000		
21	Providing and constructing 230 mm thick brickwork with bricks of class designation 75 at all levels in CM (1:6) including providing necessary staging, scaffolding curing removing the staging and scaffolding, complete work	CUM	469.00		
22	Providing 115 thick brickwork in CM (1:4) with bricks of class designation 75 at all levels including providing a layer of reinforced concrete every 6th course with 2 Nos., of 6 mm dia MS bars, providing scaffolding curing, removing scaffolding etc., complete	SQM	600.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
23	Providing, fabricating and fixing hand rail by welding or grouting to ladder, balcony, staircase, etc., including finishing, complete with Stainless steel	Kg	250.00		
24	Providing and fixing ISA 50 X 50 X 5 mm to act as nosing with lugs of MS flat 10 x 5 mm, forked at end 600 mm apart (Min. Three lugs) including necessary welding to steps, stairs, balconies etc., including applying two or more coats of approved synthetic enamel over a coat of corrosion resistant primer, complete	Kg	500.00		
25	Providing surfaces and ceiling, portico etc., with plaster of cement mortar (1:3) 6 mm thick average to get a plain and even surface finished smooth with thin coat of lime rendering at all levels including providing scaffolding, curing, etc., complete (Ceiling)	SQM	5984.00		
26	Providing surfaces of walls inside such other members with plaster of cement mortar (1:6) 15 mm thickness to get a plain and even surface, lime rendering finished smooth with all labour, materials & providing and removing scaffolding complete at all heights and levels (inside walls)	SQM	3024.00		
27	Providing surfaces of walls outside periphery of chajja etc., with plaster of CM (1:6) 15 mm average thickness to get a plain and even surface finished rough at all levels including providing and removing scaffolding (outside)	SQM	3000.00		
28	Providing rough cast plaster upto 10 m height above ground level with a mixture of sand and gravel or crushed stone from 6 mm to 10 mm nominal size dashed over and including the fresh plaster in two layers, under layer 12 mm cement plaster 1 : 4 (1 cement : 4 coarse sand) and top layer 10 mm cement plaster (1 : 3) (1 cement : 3 fine sand) mixed with 10 % finely grounded hydrated lime by volume of cement ordinary cement finish using ordinary cement	SQM	75.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
29	Supplying and fixing rolling shutters of approved make, made of 80 X 1.25 mm MS laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5 cm long wire springs grade No. 2 and MS top cover 1.25 mm thick for Rolling shutters including the cost of	SQM	18.00		
	2 H P Motor				
	Reduction Gear Box				
	Mechanical to Electrical Converting clutch system				
	Automatic step and base plates etc., mounted on frame made out of frame of approved size / demension etc., complete as per the directions of Engineer-in-charge				
30	Providing and fixing anodised aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular and other sections of approved make conforming to IS : 733 and IS : 1285 anodised transparent or dyed to required shade according to IS : 1868 (minimum anodic coating of grade AC 15), fixed with rawl plugs and screens or with fixing clips, or with expansion hold fasteners including necessary filling up of gaps at junctions at top, bottom and sides with required PVC / neoprime felt etc., Aluminium sections shall be smooth, rust free straight mitred and jointed mechanically wherever required including cleat angle, aluminium snap beading for glazing,				
	panelling, CP brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge (Glazing and panelling to be paid for separately) for shutters of doors, windows and ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of PVC / Neoprene gasket required (fittings shall be paid for separately.				

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
	(a) For Fixed portion	Kg	7542.00		
	(b) Aluminium Doors, windows / sliding including cost of all accessories	Kg	2677.50		
31	Providing and fixing anodised aluminium work (with minimum 15 micron uniform anodic coating) consisting of tee / angle sections of approved make conforming to IS : 733 in frames of false ceiling including aluminium angle cleats with necessary CP brass / stainless steel screws, aluminium perimeter angles fixed to wall with rawl plugs @ 450 mm centre to centre and fixing the frame work to level adjusting hangers (6 mm dia MS rods) with necessary cadmium plated machine screws all complete as per approved architectural drawings and directions of the Engineer-in-charge. (level adjusting hangers, ceiling cleats and expansion hold fasteners to be paid for separately). The false ceiling grid size 60 x 60 cm. The rate including cutouts openings for tube lights and Air Condition grill etc., complete at all heights & levels as directed by the Engineer-in-charge	Kg	3200.00		
32	(a) Providing and fixing 12 mm thick prelaminate three layer medium density (exterior grade) particle board Grade - I, Type II conforming to IS : 12823 bonded with phenol formaldehyde synthetic resin, of approved brand and manufacture in panelling fixed in aluminium doors, windows shutters and partition frames with CP brass / stainless steel screws etc., complete as per architectural drawings and directions of Engineer-in-charge for prelaminate particle board with decorative lamination on both sides for Door / Windows / Partitions	SQM	838.00		
	(b) Prelaminated particle board with decorative lamination on one side and balancing lamination on other side for false ceiling grid 60 x 60 or as per site conditions	SQM	800.00		
33	Providing and fixing Tinted glass in aluminium door, window, ventilator shutters and partitions etc., with PVC / neoprene gasket etc., complete as per the architectural drawings and the directions of Engineer-in-charge				

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
	a) With tinted glass panes of 5.00 mm thickness	SQM	419.00		
	b) With tinted glass panes of 6.00 mm thick for partition and Aluminium Doors	SQM	893.00		
34	Providing and painting ceilings, porticos, inside walls etc with a priming coat of cement primer and two or more coats of oil bound distemper of approved brand quality and make to give an even shade including applying zinc putty, scrubbing the surface for getting perfectly uniform and true finish as required providing scaffolding, curing wherever necessary removing scaffolding and providing touch-ups as required for ceiling	SQM	5984.00		
35	Providing and painting ceilings, porticos inside walls, etc., with a priming coat of primer and two or more coats of Acrylic plastic emulsion of approved brand and make to give an even shade including zinc putty scrubbing the surface for getting perfecting uniform and true finish as required providing scaffolding and providing touch-ups as required complete works for walls	SQM	3024.00		
36	Providing and painting ceilings porticos inside walls etc with a priming coat of suitable approved primer and two or more coats of synthetic enamel of approved quality and make to give an even shade including applying zinc putty, scrubbing the surface for getting perfectly uniform and true finish as required providing scaffolding and removing scaffolding etc., complete at all heights and levels	SQM	100.00		
37	Providing and fixing homogeneous 2 mm thick polyvinylchloride sheet / tile in flooring and skirting in approved pattern on a smooth and damp proof base using rubber based adhesives of approved quality and manufacturer like Dunlop S - 758, Fevicol SR - 908 or equivalent including rolling with light wooden roller weighing about 5 kgs all complete as directed by the Engineer-in-charge in approved colour & shade PVC flooring	SQM	200.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
38	Providing and fixing double action hydraulic floor spring of approved quality and make (conforming to IS 6315) for aluminium doors including cost of cutting floors as required, embedding in floors and cover plates etc., complete as per the directions of Engineer-in-charge	Each	70.00		
39	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pillasters, columns, piers abutments, pillars, posts struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets etc., upto and all levels excluding the cost of centering shuttering and finishing with CM (1:3) for (1:3:6) (1 : Cement : 3 Coarse Sand : 6 Graded Stone aggregate 20 mm nominal size) For flagging concrete	CUM	6.00		
40	Providing and fixing on wall face un plasticised rigid PVC rain water pipe 110 mm dia conforming to IS 13592 type A including jointing with seal ring conforming to IS 5382 leaving 10 mm gap for the thermal expansion including all fittings like bends, tees, clamps, screws, cleats etc., complete at all heights and levels as directed by the Engineer-in-charge	RM	300.00		
41	Providing and laying 18 mm thick mirror polished granite machine cut for wall dadoos, lift front face wall, and similar locations of required size of approved shade colour and texture laid over 20 mm thick base cement mortar (1:4) (1 Cement : 4 Coarse Sand) plaster and fixing the granite slab with cement slurry and joints treated with cement, mixed with matching pigment, epoxy touchups, including rubbing, curing etc., complete at all heights and levels for granite pink / grey colour as directed by Engineer - in - charge	SQM	3162.00		
42	Applying one coat of cement primer of approved brand and manufacture on wall surface at all floors and levels	SQM	3000.00		
43	Finishing walls with Acrylic smooth exterior paint "Trump" of M/s. Snowcem India Ltd., or equivalent of required shade on new work (two or more coats applied @ 1.67 Ltrs / 10 Sqm) (at all levels)	SQM	3000		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
44	Encasing Rolled sections (steel sections) in beams and columns, with cement concrete (1 : 3 : 6) (1 Cement : 3 Coarse Sand : 6 Stone aggregate 12.5 mm nominal size) including centering and shuttering but excluding the cost of reinforcement at all heights & levels	CUM	7.00		
45	Providing plastering of lift well inside surface with cement mortar (1: 6) 20 mm thick average to get plane and true plumb including providing and removing of scaffolding in lift well from ground floor to lift machine room as per requirement of lift erection group etc., complete	SQM	210.00		
46	Providing and laying 52 mm thick concrete smooth finished flooring with " Hard Crete " concrete hardener topping under layer 40 mm thick cement concrete (1:2:4) (1 Cement : 2 Coarse Sand : 4 Graded stone aggregate 6 mm nominal size) and top layer 12 mm thick hardcrete cement hardener consisting of mix (1:2) (1 cement hardner mix : 2 stone aggergate 6 mm nominal size) by volume with which hardcrete hardening compound of Snowcem India Ltd., or equivalent is mixed @ 2 litre hard crete per 50 kg of cement including cement slury but excluding the cost of nosing of step etc., complete	SQM	38.00		
47	Providing non-asbestos high impact Polypropylene reinforced cement 6mm thick corrugated sheets(as per IS: 14871) roofing up to any pitch and fixing with polymer coated ' J ' or ' L ' hooks bolts & nuts 8 mm dia G I plain and bitumen washers or with self drilling fasteners and EPDM washers etc complete excluding the cost of of purlin, rafter at all heights & levels.	SQM	13.00		
48	Providing structural steel work in single section fixed with connecting plate including angles, chequered plate, Ms plates / flats beams, Joists, Tees, Channels etc., cutting hoisting fixing in position at all levels and applying a priming coat of approved steel primer etc., complete	Kg	3000.00		
49	Providing lime concrete terracing on roof average thickness 10 cms laid to fall with 25 mm nominal size brick aggregate and 50 % of lime mortar 1 : 2 (1 lime putty : 2 Surki) rammed with wooden ramper and finished with gur and belgiri treatment including necessary tamping etc., complete at all heights and levels	SQM	1037.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
50	Providing and laying pressed split clay tiles (as per approved pattern) 20 mm nominal thickness on roofs jointed with cement mortar mixed with 2 % integral water proofing compound laid over a bed of 20 mm thick cement mortar (1 : 4) (1 cement : 4 Coarse Sand) and finished neat complete at all heights and levels as directed by the Engineer-in-charge	SQM	1037.00		
51	Providing and fixing IS : 3564 marked aluminium die cast body tubular type Universal Hydraulic door closer hardwyn make (Classic Queen) or equivalent with necessary accessories and screws etc complete at all heights & levels	Each	20.00		
52	Providing and fixing aluminium sliding door bolts I S I marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc., complete for 250 X 16 mm size at all heights & levels	Each	70.00		
53	Providing and fixing aluminium I S I marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) ISI marked tower bolts of size 250 X 10 mm size with nuts & screws	Each	70.00		
54	Providing and fixing aluminium ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium handles of 125 mm size with nuts & screws	Each	70.00		
55	Providing and fixing aluminium I S I marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium hanging floor door stopper of single rubber stopper with screws for fixing stopper	Each	70.00		
56	Providing and fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodized (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles with necessary screws etc complete (best make of approved quality)	Each	70.00		
57	Providing and fixing 35 mm thick second class indian teak wood glazed shutters with 5 mm thick stained / itching galss with necessary teak wood beading supply and fixing of MS oxidised butt hinges 100 X 58 X 1.9 mm size, 3 Nos. to each shutter fitted with suitable necessary MS metal Fold Screws etc., complete including the cost of all materials and labour etc., for double or single leaf shutters	SQM	10.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
58	Providing & fixing 40 X 5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs & embedding in cement concrete block 30 x 10 x 15 cm (1 : 3 : 6) mix (1 Cement : 3 Coarse sand : 6 graded stone aggregate 20 mm nominal size) at all levels	Each	38.00		
59	Providing & fixing ISI marked flush door shutters decorative type, core of block board construction with frame of 1st Class hard wood and well matched teak 3 ply veneering with vertical grains at cross bands and face veneers on both faces of shutters for 30 mm thick including ISI marked stainless steel butt hinges with necessary screws	SQM	33.00		
60	Providing wood work in frames of doors, windows clerestory windows and other frames wrought framed and fixed in position in second class teak wood	CUM	2.00		
61	Providing and fixing ISI marked oxidised MS handles conforming to IS 4992 with necessary screws etc complete for 125 mm size handles	Each	15.00		
62	Providing & fixing pre laminated flat pressed 3 layer (medium density) particle board (like novapan ECO Board etc.,) or graded wood particle board (like bhutan board) IS : 3087 marked with one side decorative & other side balancing lamination grade -1, type II exterior grade conforming to IS : 12823 marked inshelves with screws & MS or aluminium brackets wherever required edges to be painted with polyurethane primer. (at all heights & levels for 25 mm thick board).	SQM	10.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
63	Providing and fixing 30 mm thick factory made PVC rigid foam panelled door shutters manufactured by M/s. Rajshri or equivalent made from MS tube of 19 gauge thickness, size 19 x 19 mm for styles and 15 x 15 mm for top and bottom rails, covered with heat moulded PVC " C " channel of 5 mm thick sheet and 30 X 50 mm wide to form styles and 5 mm thick & 75 mm wide PVC sheets for top rail, lock rail and bottom rail on either side and 5 mm thick 20 mm wide cross PVC sheet as gap insert for top rail and bottom rail and panelling of 5 mm thick PVC sheet fitted in the MS frame welded / sealed to the styles and rails with 5 x 30 mm PVC sheet beading on either side and jointed together with solvent cement adhesive etc. , complete as per manufacturers specification and directions of Engineer-in-charge fixed to frames with 4 Nos., MS powder coated butt hinges (for WC and Bath room shutters) at all levels.	SQM	77.00		
64	Providing & fixing factory made PVC door frame manufactured by M/s. Rajshri or equivalent of size 50 x 47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet mitred at corners and joined with 2 nos of 150 mm long brackets of 15 x 15 mm MS square tube, the vertical door profiles to be reinforced with 19 x 19 mm Ms Square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using MS screws of 65 / 100 mm size complete as per manufacturers specification & directions of Engineer-in-charge at all levels and floors	RM	210.00		
65	Providing and fixing aluminium sliding bolts for door ISI marked anodized (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour or shade with nuts and screws etc., complete for 300 x 16 mm	Each	53.00		
66	Providing & fixing 18 mm thick plain white/ Green marble mirror polished machine cut for urinal partitions and similar locations of required size of approved shade colour and texture laid over 20 mm base cement mortar 1 : 4 (1 cement : 4 coarse sand) with joints treated white cement, mixed with matching pigment, epoxy touchups including grinding rubbing, curing etc complete at all levels size 0.60 x 1.20 mtrs at all levels and floors	SQM	40.00		
67	Providing and fixing vertical venetian blinds of approved colour and brand cost is inclusive of supply of materials, fixing, labour charges, transportation all leads, lifts, taxes etc., complete at all heights and levels	SQM	893.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
68	Providing and fixing auto sensor door made out of 10 mm thick toughened glass entry and exit sensor. Single leaf door of size 1.20 m X 2.40 m or as per required dimensions as directed by Engineer-in-charge including all labour, materials, taxes / vat etc., complete	SQM	30.00		
69	Providing and fixing level adjusting 6 mm dia hangers of MS rods (upto 1200 mm length) fixed to roof slabs bymeans of MS angle ceiling cleats 40 x 40 x 5mm size 40 mm long and expansion hold fasteners 12.5 mm dia 40 mm long including applying priming coat of zinc chromate yellow primer for steel members complete	Kg	750.00		
70 (A)	Random rubble masonry with hard stone in foundation & plith including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at plinth level with cement mortar 1:6 (1 cement : 6 coarse sand)	CUM	50.00		
(B)	Random rubble masonry with hard stone in foundation & plith including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at plinth level with cement mortar 1:6 (1 cement : 6 coarse sand) With available stones	CUM	120.00		
71	Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand) for flush pointing	SQM	75.00		
72	Providing and laying vitrified floor tiles of size 600 x 600 mm of thickness not less than 10 mm of M/s. Johnson (Marbonite) or equivalent in light colours and shades laid on 20 mm thick CM (1:3) (1 cement : 3 coarse sand) and curing and filling the joints with filler to match with colour of tiles complete as per the directions of the Engineer-in-charge at all levels and floors	SQM	1054.00		
73	Providing S.S. Hand Rail (Stainless Steel) and Baluster system of kitch A/S Grade as per Manufacture details and of design approved by Engineer - in - charge at all heights and levels.				
	(a) Top Mounted 38 mm Dia S.S. Hand rail with double Baluster of 16 mm Dia each.	RM	100.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
	(b) Wall Mounted 38 mm Dia S.S. Hand rail.	RM	50.00		
74	Providing and installing raised floor with cavity below constructed with a combination of mild steel die cast aluminium alloy jacks main and cross cold rolled steel channels stringers, wall angles, particle board floor panels with a clear height of 1 feet from the concrete floor to the top of the raised floor including steps and ramps as required. Jack shall be provided at junction of floor panels. The jacks shall be interconnected with removable main and cross channels stringers of size 40 x 40 x 40 2 mm thickness placed over aluminium alloy top head attachment to pedestals is in both directions true to level and alignment. All the steel channel shall be Zinc Electro plated. The electroplated surface shall be protected by chromate passivation. The floor panels shall be made of 35 mm thick phenol formaldehyde resin bonded three layered flat pressed teak particle				
	board with 2 mm thick antistatic laminated sheet of fire retardant and abrasion resistant quality fixed to the board surface with adhesive of approved quality. The bottom and the edge of the floor panels shall be lipped with "Z/flat" shape hard PVC beading with suitable size groove cut along the edges of the panels and fixed firmly with adhesive. The GI sheet shall overlap the beading edge. The finished panels shall be to the perfect size, shape, alignment, free from any undulation and numbered for identification. The raised floor shall be capable of taking a point load of 500 Kgs and distributed load of 800 Kgs per Square metre. the grid work & floor panels shall be 600 x 600 mm. The rate to be inclusive of all lead, lift, Taxes, VAT Taxes, Octroi, transportation, accessories, all labour charges erection etc complete at all heights and floors / levels as per the directions of Engineer-in-charge	SQM	25.00		
75	Supplying and filling in plinth with river sand under floors including, watering, ramming, consolidating and dressing complete	CUM	92.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
76	Providing and filling expansion joints in walls / columns, ceilings or any other location with expanded polystyrene or equivalent non extruding filler of approved make 25 mm thick and required width and length including fixing the pad in position after applying corresponding primer bond breaker and thick polysulphide sealant or approved equivalent on both sides of the expansion joint, all as directed etc and as per specifications complete	RM	60.00		
77	Providing cement concrete flooring (1:2:4) (1 Cement : 2 Coarse Sand : 4 Graded Stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc., complete for 50 mm thick with 20 mm nominal size stone aggregate	SQM	150.00		
78	Providing and fixing GI pipes complete with GI fittings and clamps, including cutting, painting with anti corrosive bitumastic paint, and making good the walls (internal works) 20 mm dia nominal bore	RM	175.00		
79	Providing and fixing GI pipes complete with GI fittings including trenching refilling, sealing the joints, etc., 25 mm nominal bore	RM	250.00		
80	Making connection of GI distribution branch with GI main of the existing size by providing and fixing tee and other necessary fittings including cutting and threading the pipe, sealing the joints, etc., complete for 25 to 40 mm nominal bore	Each	5.00		
81	Providing and fixing brass stop cock of approved design, quality and make 15 mm NB	Each	40.00		
82	Excavation in water bound / macadam / asphalted road area including stacking the serviceable material and un serviceable material separately and disposal of unserviceable material upto 50 mtrs lead and lift upto 1.50 mtrs	CUM	19.00		
83	Providing and fixing brass ball valve with C I wheel of approved quality (screwed end) for 25 mm dia nominal bore with reducer if necessary at all heights & levels	Each	12.00		
84	Providing & fixing 100 mm PVC for gully, floor or nahani trap at all heights and levels	Each	50.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
85	Providing and fixing CP towel rod of Jaguar or equivalent 2 feet long including all labours lead lift etc., at all heights & floors	Each	16.00		
86	Providing and laying ceramic glazed floor tile 300x300mm thickness to be specified by the manufacture of 1st quality conforming to IS 13255 of NITCO ORIENT, SOMANY KAJARIA or equivalent make in colour such as white, ivory, Grey, Fume Red brown, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) and pointing the joints with white cement and matching pigment and curing etc., complete as per the directions of Engineer-in-charge	SQM	256.00		
87	Providing and fixing PVC, soil waste and vent pipes conforming to IS 4985 of SWR quality 4 Kg & 6 Kg / Sq cm, pressure. The rate shall include cost of all fittings like plain elbow, plain tee, plain Y, 4 way tee and all required necessary specials etc., complete. jointing with rubber ring and solvent joints providing MS brackets grouted in the wall and fasteners cutting and making good the walls and floors (pipes running expose in sanitary ducts) supreme or prince quality pipes				
a)	75 mm dia	RM	125.00		
b)	110 mm dia	RM	150.00		
c)	150 mm dia	RM	38.00		

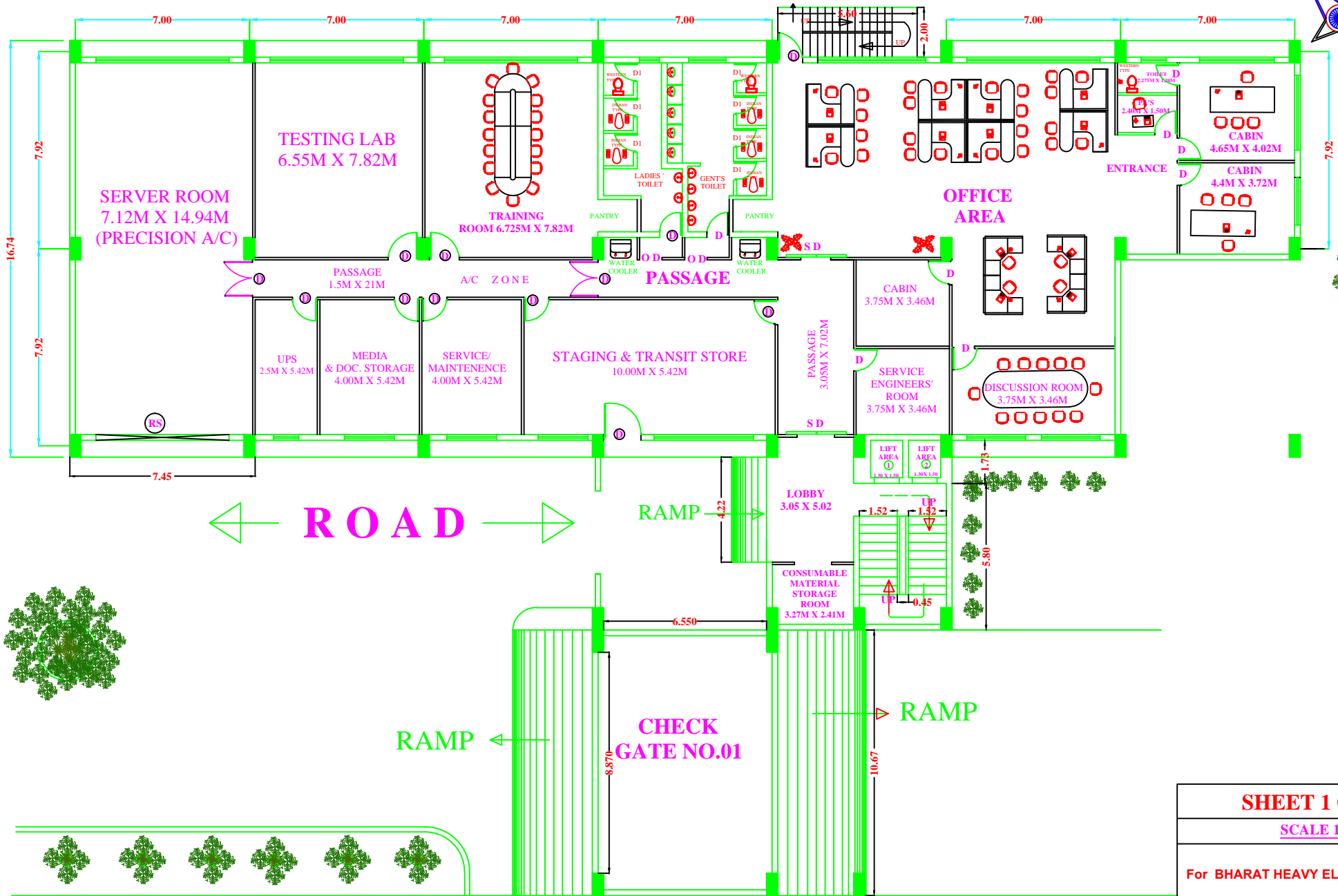
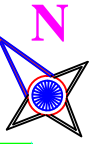
Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
88	Constructing Brick masonry circular type manhole 0.91 mtrs internal dia at bottom and 0.58 m dia at top with 75 class designation FPS Bricks in cement mortar 1 : 4 (1 cement : 4 coarse sand) inside cement plaster 12 mm thick with cement mortar (1 : 3) (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete (1 : 3 : 6) mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm noninal size) and making necessary channel in cement concrete (1 : 2 : 4) (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement all complete as per standard design for 0.91 m deep with SFRC cover and frame (heavy duty, HD - 20 grade designation) 580 mm internal dia conforming to IS 12592, total weight of cover and frame to be not less than 182 kgs fixed in C .C (1:2:4) including centering shuttering and complete (excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) with FPs bricks class designation 50	Each	5.00		
89	Providing MS foot rests including fixing in man holes with 20 x 20 x 10 cm Cement concrete blocks (1 : 3 : 6) (1 Cement : 3 Coarse Sand : 6 graded stone aggregate 20 mm nominal size) as per standard design with 20 x 20 mm square bar	Each	19.00		
90	Providing and fixing CP brass long body bib cock of approved quality conforming to IS complete with necessary accessories for 15 mm nominal bore of Jaguar or equivalent tap / cock at all heights and floors	Each	33.00		
91	Providing and fixing vitreous china wash basin coloured basin conforming to IS including pedastal of hindware / parryware make CI / MS brackets, fittings & connectios single pillar tap CP of Jaguar / equivalent testing for non leaky performance, cutting and making good the walls where required painting the brackets etc., complete for flat back coloured wash basin of size 630 x 450 mm at all heights & floors	Each	33.00		
92	Providing and fixing mirror of rectangular shape 453 x 357 mm with plastic moulded frame of approved make and shade with 6 mm thick hard board backing at all heights & floors	Each	33.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
93	Providing and fixing white water closet Squatting type pan (Indian Type) orissa pattern of size 580 x 440 mm with 100 mm sand cast iron ' P or S ' trap 10 litre low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS : 7231 parry ware / hindware / seabird / orient (coral) with all fittings and fixtures complete including cutting and making good the walls and floors where ever required etc., complete	Each	21.00		
94	Providing and fixing coloured vitreous china pedasal type water closet (european type) with seat & lid, 10 litre low level flushing cistern with fittings and CI / MS brackets, 40 mm flush bend, over flow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors where ever required WC pan with ISI marked coloured solid plastic and lid with coloured vitreous china flushing cistern and CP flush bend (low level cistern)	Each	12.00		
95	providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 580 x 380 x 350 mm sizes respectively with automatic sensor flushing cistern with standard flush pipe and C.P brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required one urinal basin with 5 lit. white PVC automatic sensor flushing cistern HINDWARE MODEL NO 60002 RANGE CONSULTATION CP FITTING JAQUAR MAKE or equivalent	Each	20.00		
96	Providing and fixing 1st quality ceramic glazed tiles conforming to IS : 13753 of minimum thickness 5 mm of approved make like NITCO, ORIENT, SOMANY, KAJARIA or equivalent make in all colours shades, design and prints except burgundy, bottle green, black of any size as approved by Engineer-in-charge in skirting risers of steps and dados over 12 mm thick bed of cement mortar (1 : 3) (1 Cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqmtrs including pointing in white cement mixed with pigment of matching shade complete	SQM	880.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
97	Excavating trenches of required width for pipes, cables etc., including excavation of sockets, dressing of sides and ramming of bottoms depth upto 1.50 mtr including getting out the excavated soil and then returning the soil as required in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering etc and disposal of surplus excavated soil as directed with in a lead of 50 mtrs in all kinds of soil for pipes, cables etc exceeding 80 mm dia but not exceeding 300 mm dia	RM	22.00		
98	Providing, laying and jointing glazed stone ware pipes grade 'A ' with stiff mixture of Cement mortar in the proportion 1 : 1 (1 cement : 1 fine sand) including testing of joints etc complete				
	(A) For 150 mm dia	RM	19.00		
	(B) For 250 mm dia	RM	19.00		
99	Providing and fixing constructing road gully chamber 50 x 45 x 60 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 fine sand) including 500 x 450 mm pre cast RCC horizontal grating with frame complete as per standard design with FPS bricks.	Each	7.00		
100	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete(1:2:4) (1 cement : 2 coarse sand : 4 graded stone aggregate 20 nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc., complete for pipes 100 to 230 mm diameter	Each	7.00		

Sl. No.	Description of Work	Unit	Qty.	Rate in fig. & words	Amount (Rs.)
101	Constructing massonry chamber 60 X 45 X 50 cm inside with 75 class designation brick work in CM (1 : 5) (1 cement : 5 fine sand) and C I double Flap surface box 400 x 200 x 200 mm (inside) with locking arrangement and RCC top slab (1 : 2 : 4) mix (1 cement : 2 coarse sand : 4 graded stone aggregate nominal size 20 mm) necessary excavation foundation concrete (1 : 5 : 10) (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with CM (1 : 3) (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design with FPS bricks	Each	3.00		
102	Providing and fixing PVC Nahani Traps of ISI Make of 100 x 100 mm at all heights and levels size	Each	15.00		
103	providing and fixing approved brands of PVC water tanks including nesessary base with bricks base,plastering ,lifting,cost of all labours, materials.4 Tanks x2000 Ltrs	Ltrs	20000.00		
104	Supplying, installing, testing and commissioning Electrical Hand Drier twin blower integrated with timer (0-3 minutes) and infrared arrangement. The drier shall be fully automatic. Make : Nova-Tech Model : NT-800 Power : 1700Watts (Size:12x6x12 inches) 230v, 1PH. 50Hz	Nos	15.00		
105	providing and fixing approved quality soap holder fix on wall with rawl plugs all materials labours etc., complete	Each	30.00		
	TOTAL AMOUNT IN FIGURES	Rs.			
	TOTAL AMOUNT IN WORDS	Rs.			

CONSTRUCTION OF HR & IT BLOCK AT EDN PERMISES .



GROUND FLOOR (BLDG NO. 04)

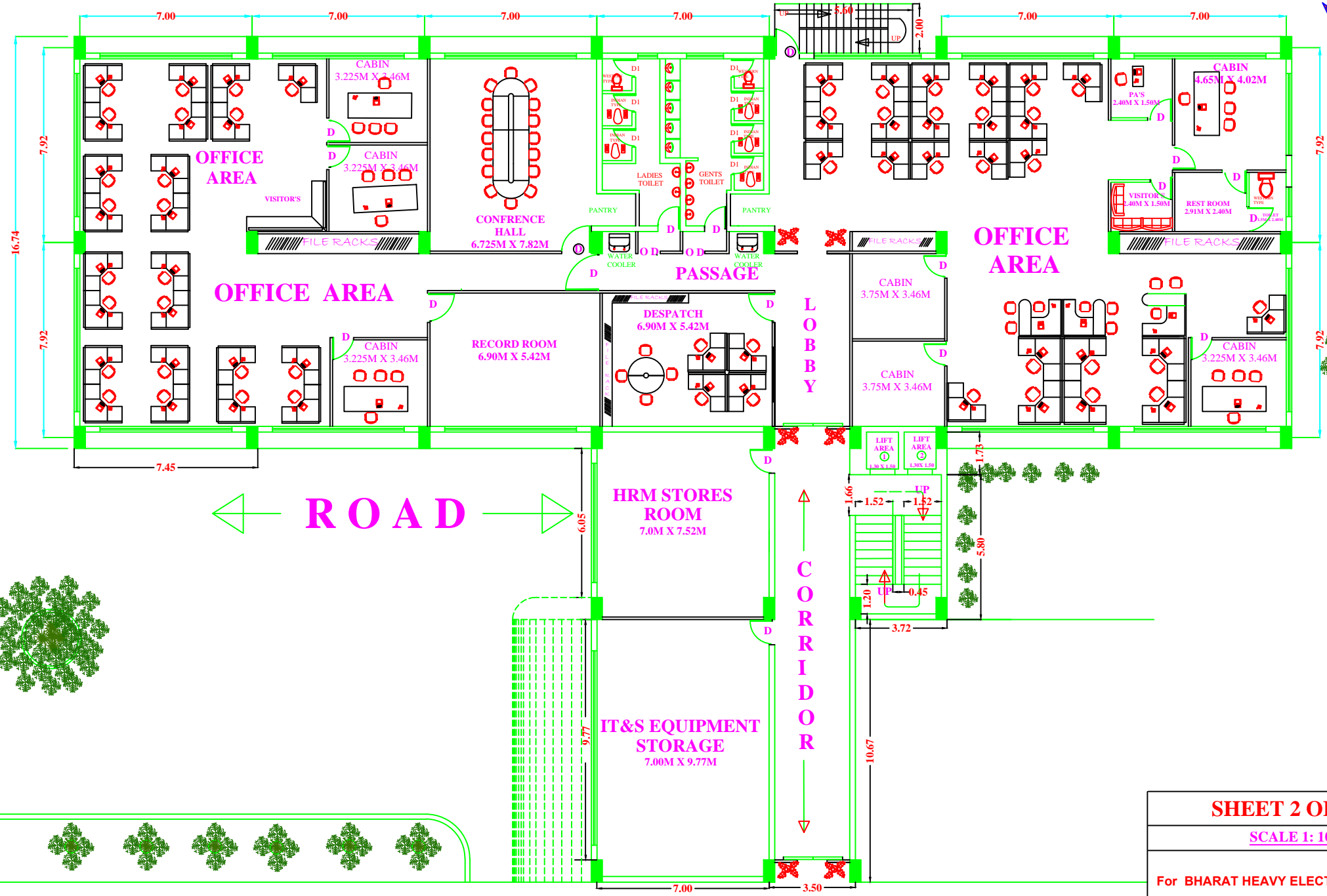
SHEET 1 OF 4

SCALE 1: 100

For **BHARAT HEAVY ELECTRICALS LTD**

ALL DIMENSION IN Mts

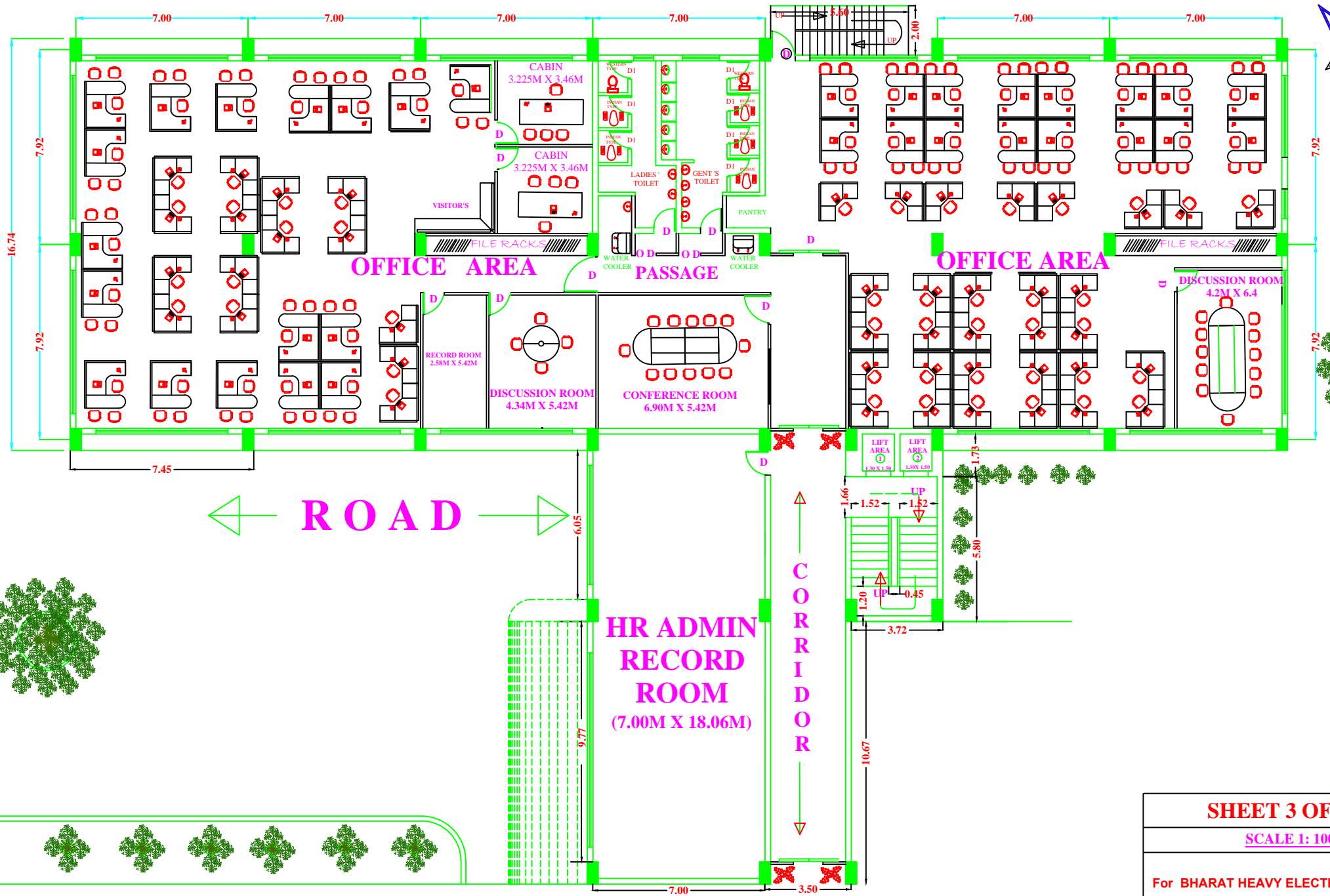
CONSTRUCTION OF HR & IT BLOCK AT EDN PERMISES .



FIRST FLOOR (BLDG NO. 04)

SHEET 2 OF 4
<u>SCALE 1: 100</u>
For BHARAT HEAVY ELECTRICALS LTD
ALL DIMENSION IN Mts

CONSTRUCTION OF HR & IT BLOCK AT EDN PERMISES .



SECOND FLOOR (BLDG NO. 04)

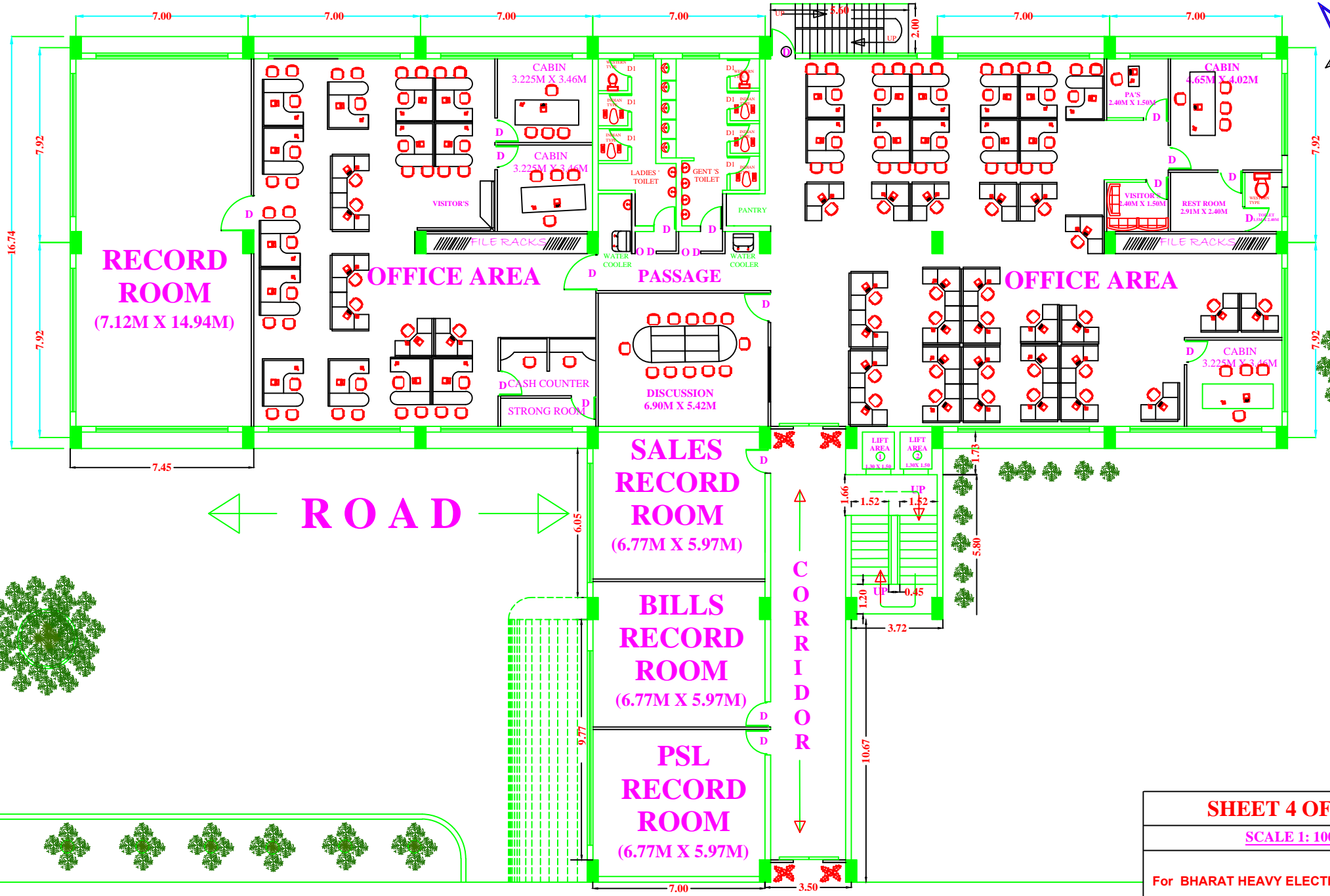
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For BHARAT HEAVY ELECTRICALS LTD

ALL DIMENSION IN Mts

CONSTRUCTION OF HR & IT BLOCK AT EDN PERMISES .



THIRD FLOOR (BLDG NO. 04)

SHEET 4 OF 4
<u>SCALE 1: 100</u>
For BHARAT HEAVY ELECTRICALS LTD
ALL DIMENSION IN Mts