

NIT

[NOTICE INVITING e-TENDER]

No.: WBPTEL/DG/eNIT-06/Wireless Stores/2025-26, Dated: 19.09.2025

e-Tender

FOR THE INSTALLATION OF

100 FT /150 FT SELF SUPPORTED TOWER

FOR USE OF

WEST BENGAL POLICE TELECOMMUNICATION



**OFFICE OF THE DIRECTOR GENERAL OF POLICE
WEST BENGAL POLICE TELECOMMUNICATION**

3, Manik Bandyopadhyay Sarani, Tollygunj, Kolkata – 700 040
Phone: 2377-0400, 2377-1701, Fax: 2311-0651,
e-mail: telecomhqrs@gmail.com

WEST BENGAL POLICE TELECOMMUNICATION

3, M. B. Sarani, Tollygunge, Kolkata – 700 040.

NOTICE INVITING e-TENDER**Tender Enquiry No.: WBPTel/ADG/eNIT- 06 /Wireless Stores/2025-26 Date: 19/09 /2025**

The Director General of Police, Telecommunication, West Bengal invites e-Tenders on behalf of the Home Department, Government of West Bengal from the bonafide bidders for the **New Installation of Four (04) legged tubular frame Self supported (SS) towers of 05 (Five) numbers throughout West Bengal (04 numbers for 100 ft and 01 numbers for 150 ft), on ground space with Lightning arrester and all hot-deep galvanized material as per quoted IS spec. (Including all materials and Labour Charges, installation of Earthing pit with Lightning arrester, AOL and two numbers of Static Aerials, with necessary Base Foundation & Super Structure (Design provided), etc. fully completed).** The height of the tower and other specifications are mentioned in the table below: -

Name of the Job:- Installation of Self Supported Tower (100 ft / 150 ft) for different Police Units.

Table-01

Sl.	Nature of Job	Quantity (Nos.)	Rate including GST	Remarks
1	Installation of 100 ft Self-Supported (SS) four (04) legged, Tubular frame Tower as per Drawing, Design and specification which includes all materials and Labour Charges, installation of Earthing pit with Lightning arrester, AOL with necessary Base Foundation as per soil test report & Super Structure (Provided by Tenderer), and installation of two numbers of Static Aerials at each Tower (Aerial & Feeder will be provided by TC HQ) etc.	04 (Four)	Unit wise	Technical Specification details including Drawing & Design of Tower are enclosed with a sketch of a lightning arrester with earthing. (See Annexure)
2	Installation of 150 ft Self-Supported (SS) four (04) legged, Tubular frame Tower as per Drawing, Design and specification which includes all materials and Labour Charges, installation of Earthing pit with Lightning arrester, AOL with necessary Base Foundation as per soil test report & Super Structure (Provided by Tenderer), and installation of two numbers of Static Aerials at each Tower (Aerial & Feeder will be provided by TCHQ) etc.	01 (One)	Unit wise	

Table-02

SL NO.	LOCATION	TOWER DESCRIPTION	Quantity (Nos)
1	BUDBUD PS	100 Ft	01
2	JAMURIA PS	100 Ft	01
3	KANKSA PS	100 Ft	01
4	KHARAGPUR TELECOM STN.	100 Ft	01
5	ISLAMPUR PD	150 Ft	01

Note: Earnest Money Deposit Rs.1,20,000.00 (One lakh Twenty thousand) Only.

A) ELIGIBILITY OF BIDDERS:

1. For the event of e-filling, intending bidder may download the Tender documents from the Web Page Links “wb.tenders.gov.in/nicgep/app” or “policewb.gov.in/wbp/tender.php” directly with the help of Digital Signature Certificate. Earnest Money Deposit Rs.1,20,000.00 (One lakh Twenty thousand) Only have to be remitted through online. No alternative will be accepted. Necessary Earnest Money will have to be deposited by the bidder electronically: online – through his net banking enabled bank account, maintained at any bank. Bidders will get the Beneficiary details from e-tender portal with the help of Digital Signature Certificate and may transfer the EMD from their respective Bank as per the Beneficiary Name & Account No., Amount, Beneficiary Bank name (ICICI)& IFSC Code. Bidders are also advised to submit EMD of their bid, at least 3 working days before the bid submission closing date as it requires time for processing of Payment of EMD. Bidders eligible for exemption of EMD as per Govt. rule may avail the same and necessary documents regarding the exemption of EMD must be uploaded in the EMD folder of Statutory bid documents.
2. Financial Bid is to be submitted online (both words & figures) concurrently duly digitally signed in the website: <http://wb.tenders.gov.in> as per Date & Time schedule stated in **Clause 14**.
3. (a) A bidder, after being accepted by the undersigned authority, shall be liable to do all the works as per the list and as per the accepted rate, for a period of two years from the date of acceptance of the financial bid; without any hike in the prices, whatever be the circumstances.
(b) Conditional / incomplete bid will not be considered.
(c) Tenderers should specify the office address within the City of Kolkata and Phone/Mobile, Fax No./e- mail I.D. for the purpose of quick communication in the event of urgency.
(d) Deviation Statement (if any) may also be enclosed.
(e) There should be an on-site support for the newly erected towers within a specific period. The L1 bidders will have to execute the work within the specified time schedule and the specified place anywhere in the state of West Bengal (according to the work order).
4. The selected Bidders shall have to deposit 5% security deposit of the total contract value of the specific work order, in favour of the DGP, Telecommunication, West Bengal through Bank Guarantee Bond of any nationalized bank and to execute an agreement of contract within 3 (three) days from the date of issue of the work order failing which the letter of acceptance, so issued, may be treated as cancelled as well as the earnest money so deposited may be forfeited and the firm may be blacklisted. No interest would be paid on the performance Security Deposit. Payment will be made as and when fund will be available from the concerned source subject to submission of final job execution report obtained from the local authority.
5. It should be noted that the firm/firms will be selected purely on a "PROVISIONAL BASIS" and the forecast requirement may increase or decrease by any quantity during the period of validity of the tender. The work execution order will be made subject to availability of Government Fund. After the tender, proposal will be initiated to the Government for allotment of Fund.
6. Director General of Police, Telecommunication, West Bengal reserves the right to reject any/or all the tendered rates without assigning any reason and not to place any orders even after selection and is not liable for any cost that might have incurred by any bidder at the stage of bidding and also reserves the right to, divide the contract amongst any number of tenderers, if required so.
Director General of Police Telecommunication, West Bengal does not bind himself / herself to accept the lowest rate.
7. Any loss incurred by reason of the price paid for such article(s) or any other loss or expense incurred by reason of such default on the part of the Bidders) may be deducted from the bills or any money payable to the Bidders) or from the security deposit of the concerned contractor(s). If the performance of the scheduled jobs is found unsatisfactory or not as to the desired level even after payment, the vendor has to refund the entire amount paid to him earlier for that particular job.

8. Each employee/Workers of the participating Bidders must be under the insurance coverage for their safety. All workers must wear helmets and safety belts during the execution of work. No worker should be allowed to work without safety measures and valid insurance coverage. In case of any accident or injury or death of labours at the time of work, the vendor shall be responsible solely. All responsibility for Tower works shall lie with the agency which would follow safety norms as per IS7205 (safety code for the erection of structural steel work). The West Bengal Police Telecommunication Authority shall in no way be liable in case of any casualty of the staff of the L/1 Bidder at the time of work.

9. Conveyance, Fooding & Lodging of the worker personnel of the Bidder: - West Bengal Police Telecommunication authority shall not be liable for the arrangement of the Conveyance, Fooding & Lodging of the personnel of the L/1 Bidder during execution of the job.

10. The participating Bidders must have previous experience of installation of such types of job.

11. Defect Liability Period: Both the 100 ft/ 150ft four (04) legged Tubular frame SS (Self-supported) Towers = 36(Thirty-six) Months.

12. Mill Test Report (MTR): Before construction, the super structure of Tower eligible bidders must submit the Mill test report of the metal which will be used for the construction of the Super structure. The MTR should be approved by the technical committee before the construction of the superstructure.

13. SPECIAL CONDITION OF CONTRACT (SCC): In case of an extreme emergent situation , the authority reserves the right to place an order not only to the L/1 bidder but also to divide the works amongst L/1 and other bidders subject to the work being completed at the L1 rate and within specific time as mentioned in work order.

14. DATE & TIMESCHEDULE:

Sl. No.	Particulars	Date & Time
1.	Date of uploading of N.I.T Documents (Online)	19-09-2025 at 18:00 hrs.
2.	Documents download/Sell Start date (Online)	23-09-2025 at 10:00 hrs.
3.	Date of hoisting of documents at Departmental Website “policewb.gov.in”	23-09-2025 at 18:00 hrs.
4.	Bid submission start date (Online)	09-10-2025 at 10:00 hrs.
5.	Pre-Bid Meeting	14-10-2025 at 12:00 hrs.
6.	Bid submission closing date (Online)	29-10-2025 at 14:00 hrs.
7.	Technical Bid opening (Bid A)	31-10-2025 at 14:00 hrs.
8.	Date of uploading list of technically qualified bidders	To be notified later
9.	Date for opening of Financial Proposal (Bid B) (Online)	To be notified later
10.	Date of uploading list of bidders along with the approved rates	To be notified later

15. Bid opening Location: Office of the Director General of Police, Telecommunication, West Bengal,

3 Manik Bandyopadhyay Sarani, Tollygaunge, Kolkata 700040.

16. Canvassing on the part of tenderers will render his tender to be cancelled summarily.

17. For any clarification regarding the Tender, Tenderers are requested to visit **Dy. Superintendent of Police (Technical)**, WBP Telecommunication Hqrs., 3 Manik Bandyopadhyay Sarani, Tollygaunge, Kolkata 700040 on any working day.

NB: Any inconsistencies in the descriptions may be expeditiously brought to the notice of the Tendering authority.

B) INSTRUCTIONS TO BIDDERS : GENERAL GUIDANCE FOR e-TENDERING

Instructions/ Guidelines for electronic submission of the tenders have been annexed for assisting the Bidders to participate in e-Tendering.

I. REGISTRATION OF THE BIDDER:

Any Bidders willing to take part in the process of e-Tendering will have to be enrolled & registered with the Government e-Procurement System, through logging on to <https://wbtennders.gov.in> (the Web Portal of Public Works Department) the contractor is to click on the link for e-Tendering site as given on the web portal.

II. DIGITAL SIGNATURE CERTIFICATE (DSC):

Each Contractor is required to obtain a Class-II OR Class-III Digital Signature Certificate (DSC) for submission of tenders for the approval service of the National Informatics Centre (NIC) on payment of requisite amount. Details are available at the website stated in Clause-I above DSC is given as a USB e-Token.

III. The contractor can search & download N.I.T. & Tender Document(s) electronically from computer once he logs on to the website mentioned in Clause-I using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

IV. It is the responsibility of the bidders to submit the bid in the formats given and as per the terms & conditions of the tender documents. If a bidder does not want to quote for an item, the cell of the BOQ should be kept blank (never put zero in a cell of the BOQ). If zero is put against a rate of an item in the BOQ, the rate will be considered as “Not Quoted” and though the system generates the rate as L1, the authority will not consider it as L1 and actual L1 will be selected from the lowest of the remaining valid rates.

V. SUBMISSION OF TENDERS:

Tenders are to be submitted through online to the website stated in Clause-I in two folders at a time for each work, one in Technical Bid & the other is Financial Bid before the prescribed date & time using the Digital Signature Certificate (DSC). The documents are to be uploaded virus scanned copy duly Digital Signed. The documents will get encrypted (transformed into non readable formats).

VI. VETTING REQUIREMENT:

A copy of the Base foundation as per Soil exploration result for specified Tower Drawing & Design which are attached in Annexure VI to IX, mentioning with each location should be vetted from IEST Shibpur Howrah, Jadavpur University, Civil Engineering department West Bengal or an equivalent reputed government organization and uploaded by the participating bidders.

VII. PENALTY CLAUSES:

(a) PENALTY FOR FORMATION OF CARTEL OR FURNISHING OF FRAUDULENT / MISLEADING DOCUMENTS:

If during the tender process or at any state during the validity of the tender period, it is found that a Tenderer(s) has formed a cartel in whatsoever form or name to fix up the rates or suppliers to the detriment of the fairness of the tender process, penal measures shall be initiated. Similar penal measures shall also be initiated against those tenders who have submitted false / misleading / fraudulent documents or made incorrect declarations. The penal measure will be forfeiture of Earnest Money, Forfeiture of Performance Bank Guarantee if enlisted as a supplier.

(b) Appropriate penal measures including, but not restricted to, the deduction of security

deposit bank Guarantee will be initiated if performance is observed below acceptable standard.

VIII. TECHNICAL SPECIFICATIONS:

- (I) Construction of four legged Tubular frame SS Tower 100 ft & 150 ft : (See Annexure – VI ,VII)
- (II) Construction of Base foundation for each tower with respect to special attention on their soil test report.

IX. SCHEDULES FOR SUPPLEMENTARY INFORMATION:

Inspection schedule: Two stage inspections will be done:

- a) After the completion of the Reinforced Concrete Cement (RCC) foundation, which will be completed within 15 days from receipt of the valid cube test report.
- b) After completion of the Tower (super structure including, installation of Earthing pit with Lightning arrester and two numbers of Static Aerials at each Tower), which will be completed within 15 days after the completion and inspection of RCC.
- c) Hand over certificate after completion of job is to be submitted to Tendering authority.

X. INSTRUCTION ON Technical Specification:

- I) **The Ttechnical Drawing and Design of tower are uploaded by the Tenderer in Annexure VI, VII,VIII & IX**
- II) **Lightning arrestor & Earthing as in Annexure IV**
- III) **Drawing & Design:** The technical drawing and design of Base foundation of each tower with respect to their soil test result as in ANNEXURE X to XIV being Vetted are to be uploaded by the Bidder.

XI. DOCUMENTS TO BE FURNISHED BY THE BIDDERS:

Sl.No.	Items	Pl mark ✓		Page No.
1	Copy of two separate drawings & designs along with the specification of the base foundation should be vetted from IEST Shibpur Howrah, Jadavpur University or equivalent reputed government organization, Civil Engineering department West Bengal for 100 ft and another for 150 ft., four-legged Tubular frame hot -deep galvanized SS towers are uploaded.	Yes	No	
2	Declaration submitted in Annexure - I	Yes	No	
3	Copy of NIT duly signed properly on each page	Yes	No	
4	Copy of PAN Card	Yes	No	
5	Copy of GST Registration Certificate	Yes	No	
6	Copy of Trade License	Yes	No	
7	Scan copy of the online transfer of the EMD document	Yes	No	
8	Last 3 financial years' returns of Income Tax, i.e., for 2022-23, 2023-24 & 2024-25	Yes	No	
9	Valid Insurance coverage for all Tower workers and agreement for close monitoring of the use of safety belts & helmets at the time of work positively.	Yes	No	

Note:

i. The bidders are requested to see that all of the above columns are marked.

ii. If any of the information furnished above is found to be false, action will be initiated as per law according to the decision of the competent authority.

IX. TECHNICALPROPOSAL:

(a) The Technical proposal should contain scanned copies of the following in two covers (folders).

(b) Statutory Cover containing the following documents:

(1) NIT (2) EMD (3) APPLICATION FORMAT (As Annexure-I) (4) Authorization letter from Company for authorized signatory (As Annexure-II) (5) AGREEMENT PAPER (AS ANNEXURE-III) (6) The technical drawing and design of Base foundation of each tower with respect to their soil test result as in ANNEXURE X to XIV being Vetted are to be uploaded by the Bidder.

(c) Non-statutory Cover containing the following documents:

THE ABOVE STATED NON-STATUTORY/TECHNICAL DOCUMENTS SHOULD BE ARRANGED IN THE FOLLOWING MANNER.

Click the check boxes beside the necessary documents in the My Document list and then click the tab "Submit Non-Statutory Documents" to send the selected documents to non-statutory folder.

Next Click the tab "Click to Encrypt and upload" and then click the "Technical" Folder to upload the Technical Documents.

Sl. No.	Category Name	Sub-Category Description	Detail(s)
A	Certificate(s)	Certificate(s)	GST Registration, Trade License, Income Tax/PAN, Letter of Authorization/DPL (Dealer Possession License) / OEM (Original Equipment Manufacturer), Latest P. Tax (Challan).
B	Company Detail(s)	Company Details	Proprietorship Firm-Trade License / Partnership Firm (Partnership Deed, Trade License) / Ltd. Company (Incorporation Certificate, Trade License) / Society (Society Registration Copy, Trade License) / Power of Attorney.
C	Credential	Credential - 1	Similar nature of work done & completion certificate, which is applicable for eligibility in this tender.
D	Returns	Income Tax	Last 3 Financial Year's of Income Tax i.e. for 2022-23, 2023-24 & 2024-25.

NOTE : BLACK & WHITE SCAN MULTI PAGE SCAN DPI MAX 200-300

VIII. FINANCIAL PROPOSAL:

(a) The Bidder is to quote the rate online through computer in the space marked for quoting rate with BOQ (Bill of Quantities).

(b) If any contractor is exempted from payment of EMD, copy of relevant Government Order needs to be furnished.

(c) The financial proposal should contain the following documents in one cover (folder) i.e., BOQ (Bill of Quantities).

(d) Only downloaded copies of the above documents are to be uploaded virus scanned & Digitally Signed by the contractor. If any tenderer fails to produce the original hard copies of the documents like completion certificate and any other documents on demand of the Tender Evaluation Committee within a specified time frame or if any deviation is detected in the hard copies from the uploaded soft copies, it may be treated as submission of false documents by the Tenderer and action may be referred to the appropriate authority for prosecution as per relevant IT Act.

C. OPENING & EVALUATION OF TENDER:

1. Opening of Technical Proposal: Deputy Inspector General of Police, Telecommunication, West Bengal will open the technical bid of the Tender.
2. Intending Tenderers may remain present if they so desire.
3. Cover (folder) for Statutory Documents will be opened first and if found in order, cover (folder) for Non-Statutory Documents will be opened. If there is any deficiency in the Statutory Documents the tender will summarily be rejected.
4. Decrypted (transformed into readable formats) documents of the non- statutory cover will be downloaded & handed over to the Tender Evaluation Committee.
5. Summary list of technically qualified tenderers will be uploaded online.
6. Pursuant to the scrutiny, decision of the Tender Evaluation Committee, the summary list of eligible tenderers & the serial number of works for which their proposal will be considered will be uploaded in the web portals.

After the completion of Technical Evaluation, Financial Bid will be opened and Financial Evaluation will be done item wise and L1 will be selected on the basis of the lowest rate as mentioned in the Table on Page-1.

IX. REJECTION OF BID:

The Director General of Police Telecommunication, West Bengal reserves the right to reject any/or all the tendered rates without assigning any reason and not to place any orders even after selection and is not liable for any cost that might have incurred by any bidder at the stage of bidding and also reserves the right to divide the contract amongst any number of Tenderers if required so and to place order for more or less than the quantity mentioned in the forecast requirement. Director General of Police, Telecommunication, West Bengal does not bind himself / herself to accept the

lowest rate.

X. AWARD OF CONTRACT:

The Bidder whose Bid has been accepted will be notified by the Tender Inviting & Accepting Authority through acceptance letter / Letter of Acceptance both online & offline to save time.

The notification of award will constitute the formation of the Contract.

The Agreement in prescribed format in admissible stamp duties will incorporate all agreements between the Tender Accepting Authority and the successful bidder/bidders. The time frame for attending the fault and restoration of equipment within the warranty period and penalty clause for the defaulters will be included in the agreement. All the tender documents including N.I.T. & B.O.Q. will be the part of the contract documents. After receipt of Letter of Acceptance, the successful bidder shall have to submit requisite copies of contract documents downloading from the website stated in the

N.I.T. along with requisite EMD.

Once the Tender is accepted the Work Order will be issued, the Vendor should undertake detailed Survey in the Ear marked areas and plan installation accordingly and the total works should be completed within 45 (forty-five) days from the issuance of work order.

Payment Terms: The total accepted value of the Project will be paid after successful completion of the Tower.

XI. VALIDITY PERIOD: The contract period will be up to September , 2026.

XII. The Lowest (L/1) Bidder shall have to shoulder the task of total installation of the Tower.

**Director General of Police
Telecommunication, West Bengal**

Committee for Preparation and Up-loading of e-NIT:

Sd/-

**DIG. Telecom, W.B
In the rank of IGP
(Chairman)**

Sd/-

**Dr. Manojit Mitra, HOD
Deptt of Electronics,
IEST, Shibpur**

Sd/-

**Additional SP.
Telecom,WB**

Sd/-

Sd/-

FORMAT FOR CHECK LIST

Sl.No.	Items	Please mark ✓		Page No.
1	Application submitted in Annexure - I	Yes	No	
2	Annexure - II (Authorization letter of signatory from the Company)	Yes	No	
3	Annexure - III (Copy of agreement between the manufacturer and the Distributor)	Yes	No	
4	Copy of PAN Card of the authorized signatory	Yes	No	
5	Copy of online payment information as applicable in favour of the Director General of Police, Telecommunication, West Bengal - as Earnest Money	Yes	No	
6	Last 3 financial years' returns of Income Tax, i.e., for 2022-23, 2023-24& 2024-25.	Yes	No	
7	Latest returns of GST	Yes	No	
8	Lead time compliance certificate from the Bidders. Format will be: Time of Delivery, Time of Installation, Time of Commissioning of System etc.	Yes	No	

Annexure - I

APPLICATION FORMAT

(To be furnished in the Company's official letter pad with full Address and Contact No., etc.)

To
The Director General of Police
Telecommunication, West
Bengal 3, Manik Bandyopadhyay
Sarani, Tollygunj, Kolkata 700
040

Sub: NIT for Wireless Stores at Office of the Director General of Police, Telecommunication,
West Bengal, 3 Manik Bandyopadhyay Sarani, Tollygunj, Kolkata 700 040.

Ref:-

Sir,

Having examined the pre-qualification & other documents published in the N.I.T, I /we hereby
submit all the necessary information and relevant documents for evaluation:

1. That the application is made by me / us on behalf of.....
in the capacity of.....duly authorized to submit the
offer. The authorization letter from the Company is attached in Annexure II.

2. We accept the terms and conditions as laid down in the NIT mentioned above and declare that we
shall abide by it for throughout the tender period.

3. We are offering rate for the following item /items and assure supply to the West Bengal Police
Telecommunication, Government of West Bengal as mentioned inPage-1.

4. (a)We propose that the order and bill should be raised in our name. For liaising, we have
appointed M/shaving its office at
..... (Address, Contact No.
and e- mail address) as C&F agent /Liaison /Contact person/..... Others (strike out whichever is
not
applicable) as per clause.....of the NIT

OR

We propose that order and bill should be raised in favour of our authorized distributor.

(b) For that purpose, we have appointed M/Shaving its
Office at.....(address with contact no and email address) as authorized
Distributor who will receive order and payment in his name on our behalf.

(c) The agreement between ourselves and the distributor/C&F/Liaison& other documents as
prescribed is attached in annexure III

5. In the event of being selected, supply will be made within the stipulated period excepting the
condition which is beyond our control.

6. We understand that:

(a) Tender Selection Committee can amend the scope & value of the contract bid under this project.

(b) Tender Selection Committee reserves the right to reject any application without assigning any
reason.

Date: -

Name and address in block letters:

Signature & Seal of applicant including title
and capacity in which application is
made. Telephone No.:

Mobile No.:

E-Mail address:

Annexure - II

Authorization letter from Company for authorized signatory.

Annexure - III
AGREEMENT

AGREEMENT OF CONTRACT made on between the Home Department, Government of West Bengal, represented by the Director General of Police, Telecommunication, West Bengal having its registered office at 3, M.B. Sarani, Tollygaunge, Kolkata 700040 of the **ONE PART**

AND

Shri/Smt./Miss _____ Son/daughter of _____ carrying on business under the name & style of M/s. _____ of _____, on the **OTHER PART**.

WHEREAS the **VENDOR** has submitted a tender for _____ to West Bengal Police Telecommunication for the period from _____ to _____ at the cost of Rs. _____ (Rupees only) Including all charges, to any place throughout West Bengal according to the work order.

WITNESS and it is hereby agreed as follows: -

1. THAT the vendor shall execute the work as per the work order at the rate mentioned therein including all other charges to any place throughout West Bengal.
2. THAT the vendor shall deposit Performance Bank Guarantee (@ 5%) with the DGP, Telecommunication, West Bengal Rs _____ (Rupees _____) Only for the fulfillment of the terms and conditions of this Agreement containing on the Part of the vendor.
3. In the event of the vendor failing to make a Performance Bank Guarantee, The Director General of Police, Telecommunication, West Bengal or any Officer authorized on behalf, may at discretion, forfeit the Earnest Money lodged with the tender and cancel the acceptance of the tender as well as black list the vendor.
4. If the vendor by any cause, requested for the delay of execution of the work within the period as mentioned in the work order, the period may be extended by the Director General of Police, Telecommunication, West Bengal after his/ her satisfaction that reasonable grounds exist for such extension.
5. If the Vendor fails to execute the work as per terms & conditions of the TENDER NOTICE and/or work order, the Director General of Police, Telecommunication, West Bengal or any Officer authorized on behalf, without any notice to the Vendor, forfeit the Performance Bank Guarantee and/or black-list the vendor.
6. All the terms and conditions of the TENDER NOTICE and work orders are binding on the Vendor.
7. If the vendor fails to comply with any of the Tender Clauses or if the material used is not up to the standard then the Director General of Police, Telecommunication, West Bengal or any Officer authorized on behalf, may order the vendor to remove such defective items at his own expense.
8. The newly constructed towers shall not be taken into stock and the payment process will not be

initiated until such towers have been inspected and considered to be fit for being accepted and taken into stock by the Inspection Committee/ Acceptance Committee.

9. All the GCC and SCC or any above terms and conditions arising out of the Tender documents, shall also be part of this agreement.

This contract shall not be sublet or assigned either wholly or in part without the previous written permission of the Director General of Police, Telecommunication, West Bengal or any Officer authorized on that behalf and on breach of this provision, the Director General of Police, Telecommunication, West Bengal or any other Officer authorized on that behalf may terminate the contract and forfeit the Performance Bank Guarantee .The vendor shall have no claim for loss thereby resulting to him on any account whatsoever.

On any breach by the vendor, the Director General of Police, Telecommunication, West Bengal or any Officer authorized on that behalf may recover any loss sustained and shall terminate the contract on “SEVEN DAYS’ NOTICE”. The decision of the Director General of Police, Telecommunication, West Bengal shall be final on any question.

Signed and delivered for and on behalf of the Home Department, Government of West Bengal, by the Director General of Police, Telecommunication, West Bengal

.....

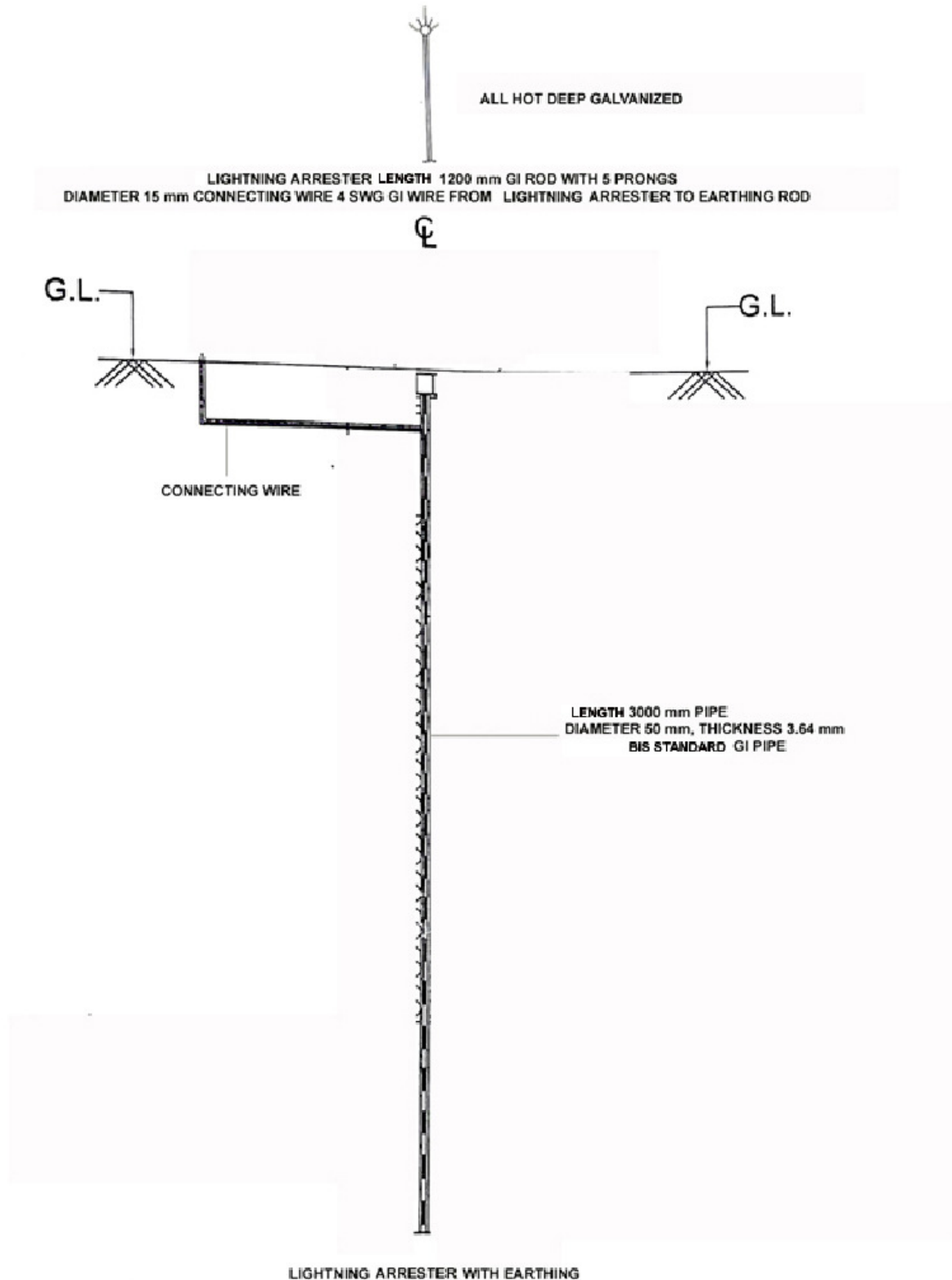
AND

Signed and delivered for and on behalf of the

In presence of.....

Annexure - IV

Lightning arrester with earthing of the towers



Annexure – V

UNDERTAKING REGARDING BLACKLISTING

[To be executed on Rs.10/- non-Judicial Stamp paper and duly notarized]

I/we _____
Vendor/Partner / Sole Proprietor /firm (Strike out the word which is not applicable) do hereby declare and solemnly affirm that M/s _____ have not been blacklisted during the last 5 years by the Union or State Government.

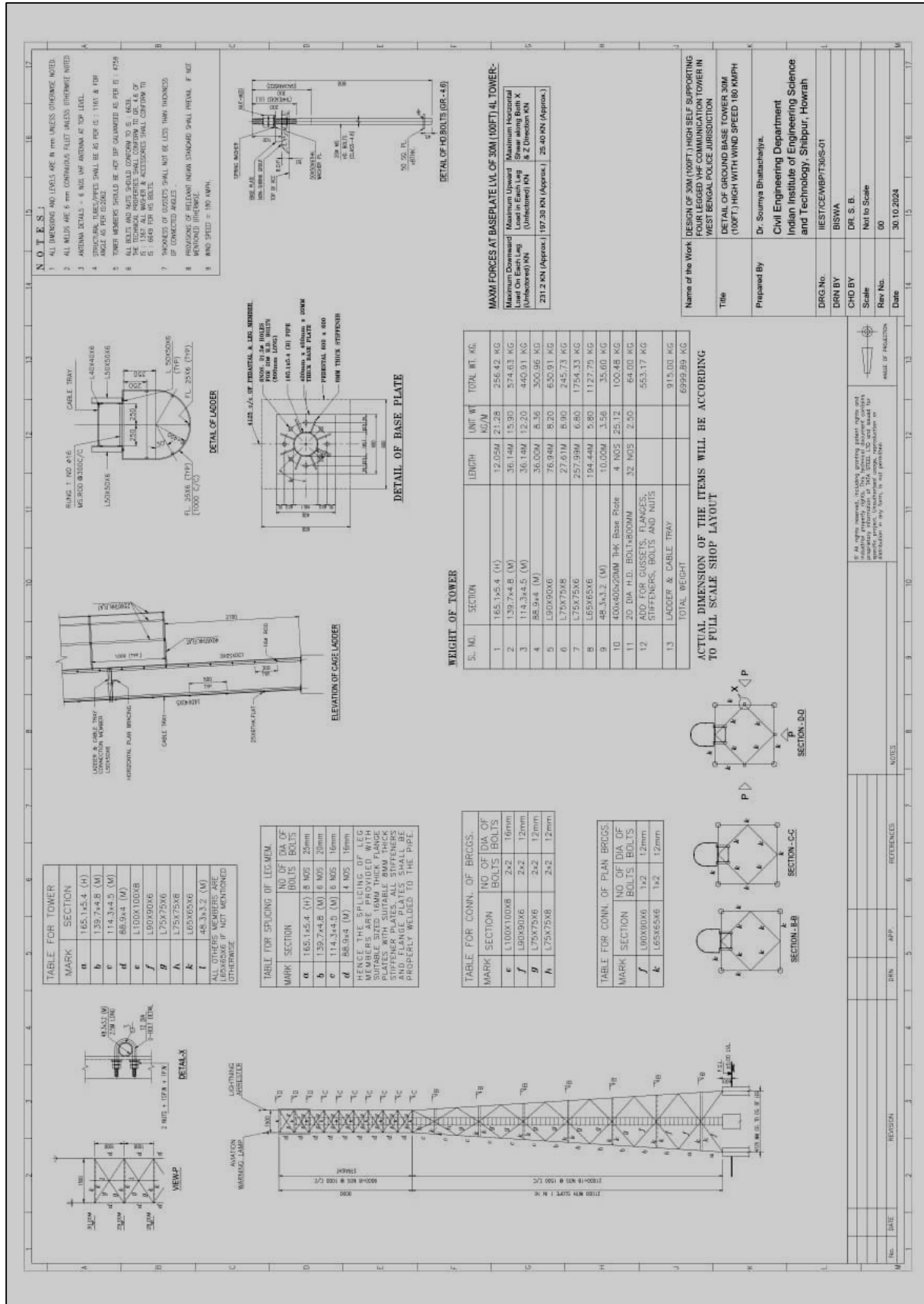
Blacklisted by the Union or State Governments or any partner or shareholder thereof are not directly or indirectly connected with or have any subsisting interest in the business of my firm.

Deponent _____
Dated _____ Address _____

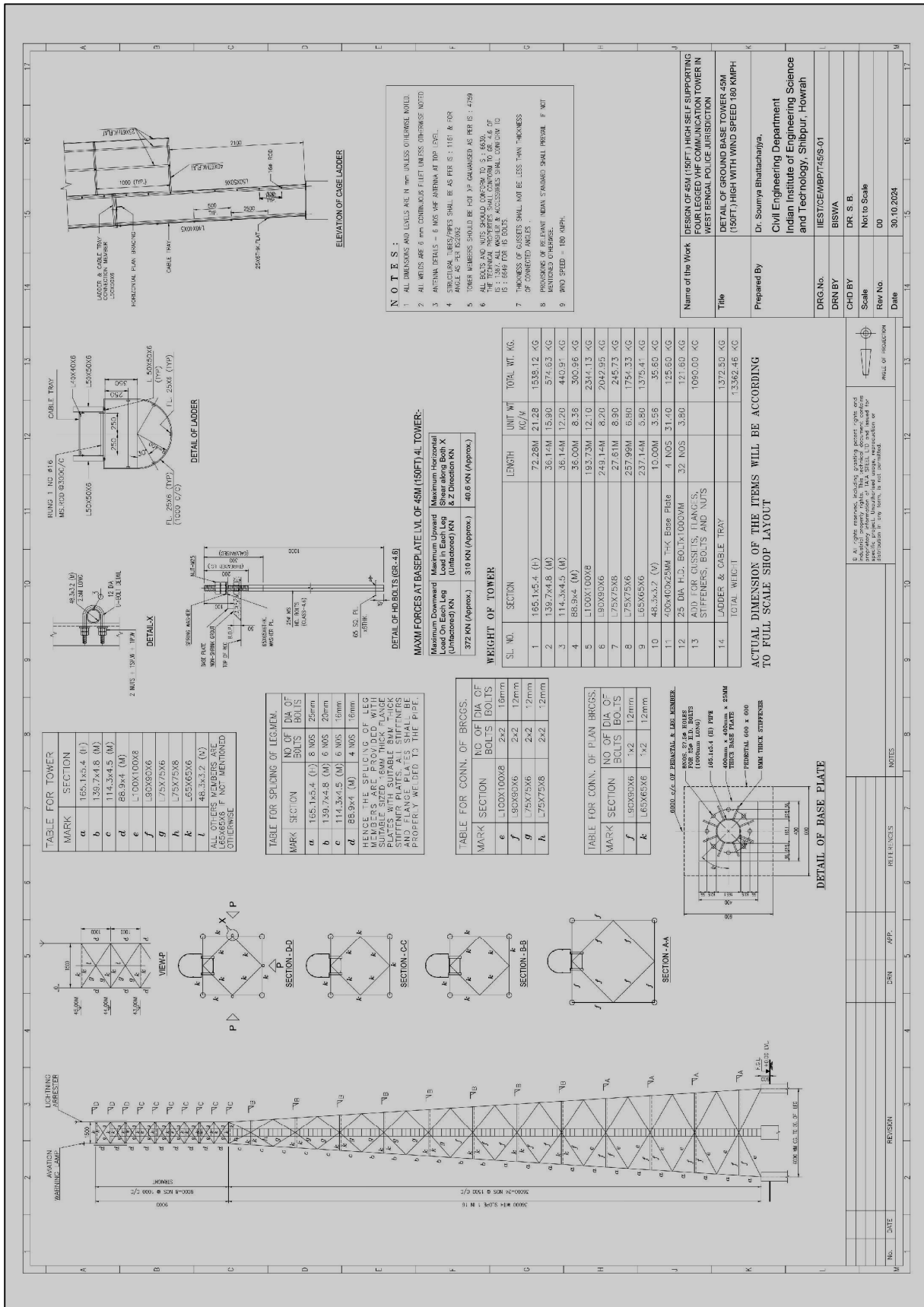
I do hereby solemnly declare and affirm that the above declaration is true and correct to the best of my knowledge and belief. No part of it is false and it conceals nothing.

Dated: _____ Deponent _____

Drawing & Design of 100 Ft SS Tower



Drawing & Design of 150 Ft SS Tower:



Annexure - VIII

Description of 100 ft SS tower:

DEPARTMENT OF CIVIL ENGINEERING

IEST, SHIBPUR, HOWRAH-711103

	REV	DATE	BY	CKD	SHEET NO
PROJECT :100FT(30.0M) HIGH VHF TOWER	0	21.10.2024			65
SITE : POLICE JURISDICTION WB					DETAILS BASE PLATE
ITEM : : DESIGN OF BASE PLATE					

DESIGN OF BASE PLATE

From the computer print outs the maximum forces on the base plates are obtained as shown below :

Maximum compressive force on the base plate as obtained from max. force envelop, say = 230.60kN

Maximum tensile force on the base plate as obtained from max. force envelop, say = 196.70kN

Again considering the fact that the permissible stresses can be increased by 25.0 % for connections like holding down bolts & load factor is 0.75. So the equivalent design loads are obtained as below :

$$\text{Tension} = 196.7 / 1.25 = 158.0\text{kN}$$

$$\text{Compression} = 230.60 / 1.25 = 185.0\text{kN}$$

Considering 8nos holding down bolts on a base plate of size 400 mm x 400 mm with positions of the bolts on the sides of the 320 mm square, maximum compressive stress and maximum tension in the holding down bolts are obtained as

$$\sigma = 185 \times 1000 / (400 \times 400) = 1.16\text{KN/mm}^2$$

$$T \text{ per bolt} = 158 / 8 = 19.75\text{KN}$$

Maximum cantilever length from face of leg member of 165.1mm dia. bottom leg or gusset, say = 77.5mm

Hence total moment on 400 mm width of plate, say, = $19750 \times 77.5 \times 3$ (for bolt tension)/400 = 11480Nmm/mm

$$\text{Or for compression} = 1.16 \times 1.25 \times 117.5 \times 117.5 / 2 = 10010\text{Nmm/mm}$$

Design moment is the greater of the two = 11480Nmm/ mm

$$\text{Required thickness of base plate} = 19.30\text{mm}$$

Provide 400 mm x 400 mm x 20mm thick base plate.

DEPARTMENT OF CIVIL ENGINEERING

IEST, SHIBPUR, HOWRAH-711103

	REV	DATE	BY	CKD	SHEET NO
PROJECT :100FT(30.0M) HIGH VHF TOWER	0	21.10.2024			66
SITE : POLICE JURISDICTION WB					DETAILS SPLICING
ITEM : : DESIGN OF SPLICING					

Maximum tension in bolt = 19.75kN

Size of 4.6 class bolt required = 17.30mm

Hence provide 8 nos. 20 mm diameter 800 long holding down bolts.

DESIGN FOR SPLICING OF LEG MEMBERS

Size of pipe	Force from computer	Design force	NO. of bolt used	Diameter of bolt
165.1H	329511	263609	8 nos	25 mm
139.7 M	171908	137527	6 nos	20 mm
114.3 M	103711	82969	6 nos	16 mm
88.9 M	46377	37102	4 nos	16 mm

Hence the splicing of leg members are provided with suitable sized 16mm thick flange plates with suitable 8mm thick stiffener plates. All stiffeners and flange plates shall be properly welded to the pipe.

DESIGN FOR CONNECTION OF BRACINGS

From the computer output forces in the angular bracing members are obtained and hence the connecting bolts required are calculated and provided as shown in the next page.

Size of angle Bracing	Force from computer	Design force	Connection provided
L 100x100x8	22560	18048	2 nos. 16 ϕ
L 75x75x8	17038	13631	2 nos. 12 ϕ
L 75x75x8	13075	10460	2 nos. 12 ϕ

DEPARTMENT OF CIVIL ENGINEERING IIEST, SHIBPUR, HOWRAH-711103

	REV	DATE	BY	CKD	SHEET NO
PROJECT :100FT(30.0M) HIGH VHF TOWER	0	21.10.2024			67
SITE : POLICE JURISDICTION WB					DETAILS WEIGHT
ITEM : ESTIMATION OF WEIGHT					

For horizontal diagonal bracing with L40x40x5 if any, single 12 ϕ bolt may be used. However for the secondary bracings having zero force as per computer results two nos. 12 ϕ bolts may be used as shown above

ESTIMATION OF TOTAL WEIGHT OF 100FT (30M)HIGH GROUND BASED TOWER

Weight of 30M Tower from computer = 5331.64kgs

Add 48.3x3.2(M) for Antenna pole Mounting = 35.60kgs

Add for base plate 4 x 2.0 x 78.5 x 0.40 x 0.40 ≈ 100.48kgs

Add for h.d. bolts 32nos20 mm dia x 1000 etc. ≈ 64.00kgs

Add for gussets, flanges, stiffeners, bolts and nuts= 553.17kgs

Add for Ladder & Cable tray = 915.00kgs

Total weight = 6999.98kgs ≈ 7.0ton

Annexure-IX

Description of 150 ft SS tower:

DEPARTMENT OF CIVIL ENGINEERING

IEST, SHIBPUR, HOWRAH-711103

	REV	DATE	BY	CKD	SHEET NO
PROJECT : 45.0M HIGH VHF TOWER	0	21.10.2024			87
SITE : POLICE JURISDICTION WB					DETAILS BASE PLATE
ITEM : DESIGN OF BASE PLATE					

DESIGN OF BASE PLATE

From the computer print outs the maximum forces on the base plates are obtained as shown below :

Maximum compressive force on the base plate as obtained from max. force envelop, say= 371.96kN

Maximum tensile force on the base plate as obtained from max. force envelop, say = 309.15kN

Again considering the fact that the permissible stresses can be increased by 25.0 % for connections like

holding down bolts & load factor is 0.75. So the equivalent design loads are obtained as below :

$$\text{Tension} = 309.15 / 1.25 = 248.0\text{kN}$$

$$\text{Compression} = 371.96 / 1.25 = 298.0\text{kN}$$

Considering 8nos holding down bolts on a base plate of size 400 mm x 400 mm with positions of the bolts on the sides of the 320 mm square, maximum compressive stress and maximum tension in the holding down bolts are obtained as

$$\sigma = 298 \times 1000 / (400 \times 400) = 1.8625 \text{KN/mm}^2$$

$$T \text{ per bolt} = 248 / 8 = 31.0 \text{KN}$$

Maximum cantilever length from face of leg member

$$\text{of } 165.1 \text{mm dia. bottom leg or gusset, say} = 77.5 \text{mm}$$

$$\text{Hence total moment on } 400 \text{ mm width of plate, say,} = 31000 \times 77.5 \times 3 \text{ (for bolt tension)} / 400 = 18019 \text{Nmm/mm}$$

$$\text{Or for compression} = 1.8625 \times 1.25 \times 117.5 \times 117.5 / 2 = 16072 \text{Nmm/mm}$$

Design moment is the greater of the two = 18019Nmm/ mm

$$\text{Required thickness of base plate} = 24.18 \text{mm}$$

Provide 400 mm x 400 mm x 25mm thick base plate.

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IEST, SHIBPUR, HOWRAH-711103

	REV	DATE	BY	CKD	SHEET NO
PROJECT : 45.0M HIGH VHF TOWER	0	21.10.2024			88
SITE : POLICE JURISDICTION WB					DETAILS SPLICING
ITEM : DESIGN OF SPLICING					

Maximum tension in bolt = 31.0kN

Size of 4.6 class bolt required = 21.68mm

Hence provide 8 nos. 25 mm diameter 1000 long holding down bolts.

DESIGN FOR SPLICING OF LEG MEMBERS

Size of pipe	Force from computer	Design force	NO. of bolt used	Diameter of bolt
165.1H	329511	263609	8 nos	25 mm
139.7 M	171908	137527	6 nos	20 mm
114.3 M	103711	82969	6 nos	16 mm
88.9 M	46377	37102	4 nos	16 mm

Hence the splicing of leg members are provided with suitable sized 16mm thick flange plates with suitable 8mm thick stiffener plates. All stiffeners and flange plates shall be properly welded to the pipe.

DESIGN FOR CONNECTION OF BRACINGS

From the computer output forces in the angular bracing members are obtained and hence the connecting bolts required are calculated and provided as shown in the next page.

Size of angle Force from Design Connection Bracing computer force provided

Size of angle Bracing	Force from computer	Design force	Connection provided
L 100x100x8	22560	18048	2 nos. 16 ϕ
L 75x75x8	17038	13631	2 nos. 12 ϕ
L 75x75x8	13075	10460	2 nos. 12 ϕ

DEPARTMENT OF CIVIL ENGINEERING

IEST, SHIBPUR, HOWRAH-711103

	REV	DATE	BY	CKD	SHEET NO
PROJECT: 45.0M HIGH VHF TOWER	0	21.10.2024			89
SITE : POLICE JURISDICTION WB					DETAILS WEIGHT
ITEM : ESTIMATION OF WEIGHT					

For horizontal diagonal bracing with L40x40x5 if any, single 12 ϕ bolt may be used. However for the secondary bracings having zero force as per computer results two nos. 12 ϕ bolts may be used as shown above

ESTIMATION OF TOTAL WEIGHT OF 45M HIGH GROUND BASED TOWER

Weight of 45M Tower from computer = 10616kgs

Add for base plate 4 x 2.8 x 78.5 x 0.40 x 0.40 ≈ 141kgs

Add for h.d. bolts 32nos25 mm Dia x 1000 etc. ≈ 130kgs

Add for gussets, flanges, stiffeners, bolts and nuts= 1060kgs

Total weight = 11947kgs ≈ 12.0 tones

Annexure-X

Soil test report of Islampur:

Table-7

Summary Table of calculation of Net Safe Bearing Capacities based on Shear Failure and Settlement criteria as per Codal Provisions based on which Suggested Net Safe Bearing Capacity has been recommended.

Depth	Width (B) Metre	Length (L)	Net Safe Bearing Capacity Based on General Shear Failure(t/m ²)	Net Safe Bearing Capacity Based on Local Shear Failure(t/m ²)	Void Ratio	Net Safe Bearing Capacity Based on Void Ratio(t/m ²)	Net Safe Bearing Capacity Based on Allowable Settlement(25 to 50mm)(t/m ²)	Suggested Net Safe Bearing Capacity (t/m ²)
2 Metre	2	2	24.92	8.21	0.74	9.24	15.14	9.24
	2	3	21.57	7.11	0.74	8.00	15.14	8.00
	3	3	27.60	8.90	0.74	10.06	12.61	10.06
	3	4	23.14	7.47	0.74	8.43	12.61	8.43
	4	4	30.50	9.68	0.74	10.97	11.45	10.97
3 Metre	3	3	39.45	12.74	0.73	14.93	14.90	14.90
	3	4	33.08	10.69	0.73	12.52	14.90	12.52
	4	4	42.12	13.41	0.73	15.76	13.29	13.29

Recommendations

1. Above recommendations are made for Isolated footings of mentioned sizes and depth.
2. For footings of intermediate size, interpolation may be done.
3. Recommendation are also valid for strip footing of equivalent width.
4. **PROPOSED (SELF SUPPORTED) TOWER(46m)**
5. Since the type of structure is Tower, depth and type of foundation can be changed depending on structural issues like overturning etc.
6. Recommended bearing capacities can be used conservatively for mat foundation also.

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ANNEXURE XI

Soil test report of Buddub:

DETAILED SOIL INVESTIGATION FOR BUDBUD P.S.

TABLE - 1

ALLOWABLE BEARING CAPACITY

Type of Foundation	Size of Foundation (mxm)	Depth of Foundation below Av. G.L. (m)	Net safe bearing capacity (t/m^2)	Allowable Bearing Capacity (t/m^2)	Settlement (mm)
Square	1.5 x 1.5	1.5	12.2	12.2	24
	2.0 x 2.0	1.5	11.7	11.7	32
	2.5 x 2.5	1.5	11.4	11.4	44
	3.0 x 3.0	1.5	11.2	11.2	55
	3.5 x 3.5	1.5	11.0	11.0	67
	4.0 x 4.0	1.5	10.9	10.4	75
Rectangular	1.50 x 3.00	1.5	10.3	10.3	26
	2.00 x 4.00	1.5	9.9	9.9	35
	2.50 x 5.00	1.5	9.6	9.6	46
	2.75 x 5.50	1.5	9.5	9.5	51
	3.00 x 6.00	1.5	9.5	9.5	56
Strip	1.50m	1.5	9.4	9.4	46
	2.00m	1.5	9.0	9.0	62
	2.50m	1.5	8.8	8.2	75
	2.75m	1.5	8.7	7.4	75
	3.00m	1.5	8.6	6.8	75

ANNEXURE XII

Soil test report of Jamuria:

DETAILED SOIL INVESTIGATION FOR JAMURIA P.S.

TABLE – 1

ALLOWABLE BEARING CAPACITY					
Type of Foundation	Size of Foundation (mxm)	Depth of Foundation below Av. G.L. (m)	Net safe bearing capacity (t/m^2)	Allowable Bearing Capacity (t/m^2)	Settlement (mm)
Square	2.0 x 2.0	2.0	12.7	12.7	31
	2.5 x 2.5	2.0	13.7	13.7	35
	3.0 x 3.0	2.0	14.6	14.6	39
	3.5 x 3.5	2.0	15.6	15.6	42
	4.0x4.0	2.0	16.6	16.6	46
Rectangular	2.0 x 4.0	2.0	12.0	12.0	29
	2.5 x 5.0	2.0	12.9	12.9	33
	2.75 x 5.5	2.0	13.4	13.4	35
	3.0 x 6.0	2.0	13.9	13.9	37
	3.5 x 7.0	2.0	14.9	14.9	40
Strip	2.00m	2.0	12.2	12.2	30
	2.25m	2.0	12.8	12.8	32
	2.50m	2.0	13.4	13.4	34
	2.75m	2.0	14.0	14.0	37
	3.00m	2.0	14.6	14.6	39

ANNEXURE XIII

Soil test report of Kharagpur:



GEOCON INDIA

Shallow foundation:

For the foundation base placed at 1.2 m depth below T.C.L./ E.G.L

A Net Safe Bearing capacity of 21.3 T/sqm for 2.0 m wide Square foundation, 22.0 T/sqm for 2.5 m wide Square foundation, 22.8 T/sqm for 3.0 m wide Square foundation & 22.5 T/sqm for 4.0 m wide Square foundation can be taken up for the proposed foundation base.[For $\Phi = 30$ deg.].

A Net Safe Bearing capacity of 22.4 T/sqm for 2.5m x 5.0m wide Rectangular foundation, 24.0 T/sqm for 3.0 m x 6.0 m wide Rectangular foundation, 24.7 T/sqm for 3.5 m x 7.0 m wide Rectangular foundation & 21.0 T/sqm for 4.0 m x 8.0 m wide Rectangle foundation can be taken up for the proposed foundation base.[For $\Phi = 30$ deg.].

A Net Safe Bearing capacity of 20.3 T/sqm for 1.5 m wide Strip foundation, 21.4 T/sqm for 2.0 m wide Strip foundation, 22.6 T/sqm for 2.5 m wide Strip foundation & 23.9 T/sqm for 3.0 m wide Strip foundation can be taken up for the proposed foundation base.[For $\Phi = 30$ deg.].

Here I am inclined to suggest to take 12.0 T/sqm for square foundation to be placed at 1.5 m depth below T.C.L./ E.G.L. The settlement is within the permissible limit of 75 mm. Hence ok.

T.C.L./ E.G.L. is 0.30 m down from Road Level.



For GEOCON INDIA
For GEOCON INDIA
Proprietor

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ANNEXURE XIV

Soil test report of Kanksa:

DETAILED SOIL INVESTIGATION FOR KANKSA P.S.

TABLE - 1

ALLOWABLE BEARING CAPACITY

Type of Foundation	Size of Foundation (mxm)	Depth of Foundation below Av. G.L. (m)	Net safe bearing capacity (t/m^2)	Allowable Bearing Capacity (t/m^2)	Settlement (mm)
Square	1.5 x 1.5	1.5	12.8	12.8	23
	2.0 x 2.0	1.5	12.3	12.3	32
	2.5 x 2.5	1.5	12.0	12.0	41
	3.0 x 3.0	1.5	11.8	11.8	50
	3.5 x 3.5	1.5	11.6	11.6	61
	4.00x4.00	1.5	11.5	11.5	71
Rectangular	1.50 x 3.00	1.5	10.9	10.9	26
	2.00 x 4.00	1.5	10.4	10.4	35
	2.50 x 5.00	1.5	10.1	10.1	45
	2.75 x 5.50	1.5	10.0	10.0	50
	3.00 x 6.00	1.5	10.0	10.0	55
Strip	1.50m	1.5	9.9	9.9	45
	2.00m	1.5	9.5	9.5	60
	2.50m	1.5	9.2	9.1	75
	2.75m	1.5	9.1	8.2	75
	3.00m	1.5	9.0	7.4	75