

**TENDER SPECIFICATION**  
**NO: BHE/PW/PUR/ SAKHM-GEO/1097**

**FOR**

**CARRYING OUT TOPOGRAPHICAL SURVEY, SOIL INVESTIGATION  
WORKS AND WATER DIVING TESTS AT POWER EQUIPMENT  
FABRICATION PLANT OF BHEL**

**AT**

**SAKOLI, DIST. BHANDARA, MAHARASHTRA**

**TECHNICAL BID - VOLUME- I**

**TENDER SPECIFICATIONS CONSISTS OF:**

- **Notice Inviting Tender,**
- **Technical Conditions of Contract,**
- **Special conditions of Contract,**
- **General conditions of Contract**
- **Forms & Procedures**

**VOLUME I**



**Bharat Heavy Electricals Limited**  
*(A Government of India Undertaking)*  
Power Sector - Western Region  
345-Kingsway, Nagpur-440001

## CONTENTS

Volume No	Description	Hosted in website bhel.com as files titled	No. of pages
NIL	Tender Specification Issue Details	(Part of <b><u>Vol-IA-1097</u></b> )	3
NIL	Notice Inviting Tender	(Part of <b><u>Vol-IA-1097</u></b> )	13
I-A	Technical Conditions of Contract	Vol-IA-1097	24
I-B	Special Conditions of Contract	Vol-IBCD-1097	47
I-C	General Conditions of Contract	(Part of <b><u>Vol-IBCD-1097</u></b> )	29
I-D	Forms & Procedures	(Part of <b><u>Vol-IBCD-1097</u></b> )	54
II	Price Bid Specification	Vol-II-1097	

## Tender Specification Issue Details

Tender Specification No: BHE/PW/PUR/ SAKHM-GEO/1097

**CARRYING OUT TOPOGRAPHICAL SURVEY, SOIL INVESTIGATION WORKS AND  
WATER DIVING TESTS AT POWER EQUIPMENT FABRICATION  
PLANT OF BHEL**

**AT**

**SAKOLI, DIST. BHANDARA, MAHARASHTRA**

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR                      Refer Notice Inviting Tender  
TENDER SUBMISSION

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING VOLUME-I AND  
VOLUME- II ARE ISSUED TO:

M/s. ....

.....

PLEASE NOTE:

THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

**DY. GENERAL MANAGER (Purchase)**

Place: Nagpur

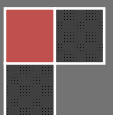
Date:

1097

# NOTICE INVITING TENDER

(Document No PS:MSX:NIT:Rev 01 dated 1<sup>st</sup> Jun  
2012)

Bharat Heavy Electricals Limited



**NOTICE INVITING TENDER (NIT)**  
**NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES  
OR  
PURCHASE TENDERS FROM THIS OFFICE ALSO**

To

Dear Sir/Madam

**Sub: NOTICE INVITING TENDER**

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

**1.0 Salient Features of NIT**

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	BHE/PW/PUR/ SAKHM-GEO/1097
ii	Broad Scope of job	FOR CARRYING OUT TOPOGRAPHICAL SURVEY, SOIL INVESTIGATION WORKS AND WATER DIVING TESTS AT POWER EQUIPMENT FABRICATION PLANT OF BHEL AT SAKOLI, DIST. BHANDARA, MAHARASHTRA
iii	DETAILS OF TENDER DOCUMENT	
a	Volume-IA	<i>Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i> <span style="float: right;">Applicable</span>
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> <span style="float: right;">Applicable</span>
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> <span style="float: right;">Applicable</span>
d	Volume-ID	<i>Forms and Procedures</i> <span style="float: right;">Applicable</span>
e	Volume-II	<i>Price Schedule (Absolute value).</i> <span style="float: right;">Applicable</span>
iv	Issue of Tender Documents	<ol style="list-style-type: none"> <li><b><u>Sale from BHEL PS Regional office at :Nagpur</u></b> Start : 31/01/2013 Closes: 13/02/2013 , Time :16.00 Hrs</li> <li>From BHEL website (<a href="http://www.bhel.com">www.bhel.com</a>) Tender documents can however be downloaded from website till due date of submission</li> </ol> <span style="float: right;">Applicable</span>
v	DUE DATE & TIME OF OFFER SUBMISSION	<b>Date : 14/02/2013 , Time :15.00Hrs</b> <b>Place : <u>BHEL PS Regional office at :Nagpur</u></b> Tenders being submitted through representative shall be handed over to any of the following BHEL officials after making entry/registration at the reception: Shivkesh Meena/ Engineer (Purchase) S M Borkar/ DGM(Purchase) <span style="float: right;">Applicable</span>

**BHEL PSWR  
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097

Page 6 of 41

vi	<b>OPENING OF TENDER</b>	<b>1 hours after the latest due date and time of Offer submission</b> Notes: (1) In case the due date of opening of tender becomes a non-working day, tenders shall be opened on next working day at the same time. (2) Bidder may depute representative to witness the opening of tender	Applicable
vii	<b>EMD AMOUNT</b>	Rs 40,000/- (Rupees Forty Thousand Only)	Applicable
viii	<b>COST OF TENDER</b>	Rs 2000/- (Two Thousand Only)	Applicable
ix	<b>LAST DATE FOR SEEKING CLARIFICATION</b>	Date: Atleast 5 days before the due date of offer submission Along with soft version also, addressing to undersigned & to others as per contact address given below	Applicable
x	<b>SCHEDULE OF Pre Bid Discussion (PBD)</b>	Date: Not applicable.	Not applicable.
xi	<b>INTEGRITY PACT &amp; DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)</b>		NOT Applicable
xii	<b>Latest updates</b>	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage ( <a href="http://www.bhel.com">www.bhel.com</a> -->Tender Notifications →View Corrigendums) <b>and not in the newspapers</b> . Bidders to keep themselves updated with all such information	

- 2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed & stamped on each page, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**
- 3.0 Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Nagpur issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Nagpur, Sundays and second/ last Saturdays
- 4.0 Unless specifically stated otherwise, bidder shall deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Nagpur. For other details and for 'One Time EMD' please refer General Conditions of Contract.
- 5.0 **Procedure for Submission of Tenders:** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:
- PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD/COST of TENDER)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 7 of 41**

- PART-II (Price Bid) – in sealed and superscribed envelope (ENVELOPE-III)
- One set of tender documents shall be retained by the bidder for their reference

6.0 The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below.  
**(All pages to be signed and stamped)**

Sl no	Description	Remarks
	<b>Part-I A</b>	
	<b>ENVELOPE – I superscribed as :</b> PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:-</b>	
i.	Covering letter/Offer forwarding letter of Tenderer.	
ii.	Duly filled-in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.  <b>Note:</b> a. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	
iii.	Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.  It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 8 of 41**

<b>PART-I B</b>	
	<p><b>ENVELOPE – II superscribed as:</b> PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p><b>CONTAINING THE FOLLOWING:-</b></p>
i.	<p>1. Earnest Money Deposit (EMD) in the form as indicated in this Tender <b>OR</b> Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender</p> <p>2. Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)</p>

<b>PART-II</b>	
	<b>PRICE BID</b> consisting of the following shall be enclosed
	<p><b>ENVELOPE-III</b> superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p><b>CONTAINING THE FOLLOWING</b></p>
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I
ii	Volume II – PRICE BID ( Duly Filled in Schedule of Rates – rate/price to be entered in words as well as figures)

<b>OUTER COVER</b>	
	<p><b>ENVELOPE-IV (MAIN ENVELOPE / OUTER ENVELOPE)</b> superscribed as: TECHNO-COMMERCIAL BID, PRICE BID &amp; EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION:</p> <p><b>CONTAINING THE FOLLOWING:</b></p>
i	<ul style="list-style-type: none"> <li>○ Envelopes I</li> <li>○ Envelopes II</li> <li>○ Envelopes III</li> </ul>

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 9 of 41**

.....  
SPECIAL NOTE : All documents/ annexures submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing documents.

- 7.0 Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.
- 8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).
- 9.0 Assessment of Capacity of Bidders: VOID**
- 10.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.
- 11.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 12.0 BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 13.0 In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0 Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **if applicable**, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (1) above.**
- 16.0 The Bidder has to satisfy the Pre Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.
- 17.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorised representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders.
- 18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 10 of 41**

- 19.0 BHEL reserves the right to decide the successful bidder on the basis of Reverse Auction process. In such case all qualified bidders will be intimated regarding procedure/ modality for Reverse Auction process prior to Reverse Auction and price will be decided as per the rules for Reverse Auction. .
- However, if reverse auction process is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the sealed 'PRICE BIDS' will be opened for deciding the successful bidder. BHEL's decision in this regard will be final and binding on bidder.
- 20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 21.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.
- 22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 23.0 Consortium Bidding (or Technical Tie up) shall be allowed only if specified in Pre Qualifying Requirement (PQR) criteria, and in such a case the following shall be complied with:
- 23.1 Prime Bidder and Consortium Partner or partners are required to enter into a consortium agreement with a validity period of six months initially. In case the consortium is awarded the contract, then the Consortium Agreement between the Prime Bidder and Consortium Partner or partners shall be extended till contractual completion period including extension periods if any applicable.
- 23.2 'Stand alone' bidder cannot become a **'Prime Bidder' or a 'Consortium bidder' or 'Technical Tie up bidder' in a consortium (or Technical Tie up) bidding**. Prime bidder shall neither be a consortium partner to other prime bidder nor take any other consortium partners. However, consortium partner may enter into consortium agreement with other prime bidders. In case of non compliance, consortium bids of such Prime bidders will be rejected.
- 23.3 Number of partners for a consortium Bidding (or Technical Tie up) shall be as specified in the PQR
- 23.4 Prime Bidder shall be as specified in the Pre Qualification Requirement, else the bidder who has the major share of work
- 23.5 In order to be qualified for the tender, Prime Bidder and Consortium partner or partners shall satisfy (i) the Technical 'Pre Qualifying Requirements' specified for the respective package, (ii) "Assessment of Capacity of Bidder" as specified in clause 9.0
- 23.6 Prime Bidder shall comply with additional 'Technical' criteria of PQR as defined in 'Explanatory Notes for the PQR'
- 23.7 Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified
- 23.8 In case customer approval is required, then Prime Bidder and Consortium Partner or partners shall have to be individually approved by Customer for being considered for the tender.
- 23.9 Prime Bidder shall be responsible for the overall execution of the contract
- 23.10 In case of award of job, Performance shall be evaluated for Prime Bidder and Consortium Partner or partners for their respective scope of work(s) as per prescribed formats
- 23.11 In case the Consortium partner or partners back out, their SDs shall be encashed by BHEL. In such a case, other consortium partner or partners meeting the PQR have to be engaged by the Prime Bidder,

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 11 of 41**

.....  
and if not, the respective work will be withdrawn and executed on risk and cost basis of the Prime Bidder. The new consortium partner or partners shall submit fresh SDs as applicable.

- 23.12 In case the prime Bidder withdraws, the whole contract shall be considered cancelled and short closed.
- 23.13 After execution of work, the work experience shall be assigned to the Prime Bidder and the consortium partner or partners for their respective scope of work. After successful execution of two similar works with the same consortium partner or partners under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a 'stand alone' bidder for similar works, subject to certification from BHEL about the active involvement of the Prime Bidder for satisfactory execution of the works.
- 23.14 The consortium partner shall submit SD equivalent to 2% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value. In case there are two consortium partners, then each partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value.
- 23.15 In case of a Technical Tie up, all the clauses applicable for the Consortium partner shall be applicable for the Technical Tie up partner also
- 24.0 The bidder shall submit documents in support of possession of 'Qualifying Requirements' duly self certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.
- 25.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 26.0 Order of Precedence  
In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:
- a. Amendments/Clarifications/Corrigenda/Errata etc issued in respect of the tender documents by BHEL
  - b. Notice Inviting Tender (NIT)
  - c. Price Bid
  - d. Technical Conditions of Contract (TCC)—Volume-1A
  - e. Special Conditions of Contract (SCC) —Volume-1B
  - f. General Conditions of Contract (GCC) —Volume-1C
  - g. Forms and Procedures —Volume-1D

for BHARAT HEAVY ELECTRICALS LTD

(AGM Purchase

**Enclosure**

01. Annexure-1: Pre Qualifying criteria.
02. Annexure-2: Check List .
- 03 Other Tender documents as per this NIT.

**ANNEXURE - I**

**PRE QUALIFYING CRITERIA**

JOB	FOR CARRYING OUT TOPOGRAPHICAL SURVEY, SOIL INVESTIGATION WORKS AND WATER DIVING TESTS AT POWER EQUIPMENT FABRICATION PLANT OF BHEL AT SAKOLI, DIST. BHANDARA, MAHARASHTRA
TENDER NO	BHE/PW/PUR/ SAKHM-GEO/1097

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document
A	Submission of Integrity Pact duly signed (if applicable)	<b>NOT APPLICABLE</b>	
B	<p><b><u>Technical</u></b> Bidder shall essentially meet the ALL Qualifying Requirements (QR) as stated below.</p> <p>a) Bidder must have successfully completed Geo-technical Investigation &amp; Topographical Survey Work including execution of Bore Hole in all kind of strata including soft &amp; hard rock up to 15 Meter depth, in power plant or in any Industrial Project, in the last seven years as on date of offer submission as below:</p> <p style="margin-left: 40px;">i) Single work order of <b>Rs 16.00 LAKHS</b> or of more value. <b>OR</b></p> <p style="margin-left: 40px;">ii) Two work orders of <b>Rs 10.00 LAKHS</b> on average. <b>OR</b></p> <p style="margin-left: 40px;">iii) Three work orders of <b>Rs 8.00 Lakhs</b> on average.</p>	<b>APPLICABLE</b>	
C 1	<p><b><u>Financial</u></b> <b><u>TURNOVER</u></b> Bidders must have achieved an average annual financial turnover (Audited) of <b>Rs 6.00 Lakhs</b> or more over last three Financial Years (FY) i.e. 2009-2010, 2010-2011, 2011-2012</p>		
2	<p><b>NETWORTH</b> (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive</p>		

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 13 of 41**

3	PROFIT Bidder must have earned cash profit in any one of the three Financial Years as applicable in the last three Financial Years defined in 'C-1 above based on latest Audited Accounts.		
D	Assessment of Capacity of Bidder to execute the work as per SI no 9 of NIT (if applicable)	<b>NOT APPLICABLE</b>	
E	Approval of Customer (if applicable) Note: Names of bidders who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval. Price bid of only those bidders shall be opened who are approved by customer.	<b>NOT APPLICABLE</b>	
F	Consortium criteria (if applicable)	<b>NOT APPLICABLE</b>	

**Explanatory Notes for the PQR (unless otherwise specified in the PQR):**

1. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above along with all annexures
2. In case audited Financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years i.e total divided by three.
3. C-2:-NETWORTH : Shall be calculated based on the latest Audited Accounts as furnished for C-1 above. Net worth = Paid up share capital + Reserves. (Net worth is required to be evaluated in case of companies)
4. C-3:- PROFIT : shall be NET profit (PAT + Non cash expenditure viz depreciation) earned during any one of the three financial years as in C-1 above
5. 'Additional' Criteria in respect of 'Technical' criteria of PQR (as in 'B' above) for Civil, Electrical, CI, unless otherwise specified :
  1. Bidder should have executed similar work of any one of the following:
    - a. One (1) work of value not less than Rs XXX  
OR
    - b. Two (2) works of not less than Rs YYY  
OR
    - c. Three (3) works of not less than Rs ZZZ  
(Value XXX, YYY, ZZZ shall be as indicated by BHEL
  2. 'Similar' work for criteria 5 above means
    - a. Civil or Structures or Civil & Structures or Chimney respectively as applicable to the tendered scope in respect of 'CIVIL' Works
    - b. Electrical works in respect of 'ELECTRICAL'
    - c. CI works in respect of 'CI' Works
    - d. Material Handling and/or Management works in respect of 'MM' works
6. Time period for achievement of the 'Technical' criteria of PQR (as in 'B' above) will be the last 7 years ending on the 'latest date' of Bid submission
7. 'EXECUTED' means the Vendor should have achieved the criteria specified in the Technical criteria of PQR (as in 'B' above) even if the Contract has not been completed or closed
8. Unless otherwise specified, for the purpose of 'Technical' criteria of PQR ( as in 'B' above), the word 'EXECUTED' means:
  1. "BOILER LIGHT UP" in respect of Boiler & Aux and ESP
  2. "SYNCHRONISATION" in respect of STG/GTG and 'SPINNING' in case of HTG
  3. "STEAM BLOWING COMPLETION" in respect of at least Main Steam Line of Power Cycle Piping
  4. "HYDRAULIC TEST" of the system in respect of Structures, Pressure parts/IBR Piping
  5. "CHARGING" in respect of power Transformers, Bus ducts, HT/LT switchgears
  6. "Completion of RCC Shell and liner (steel or brick as per tendered scope) up to the HEIGHT specified using slip form" in case of RCC Chimney.
  7. Achievement of physical Quantities as per respective PQRs in respect of Civil & Structures and Piling

**BHEL PSWR  
Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097**

**Page 14 of 41**

<u>Works</u>
<p>8. <del>“Readiness for coal Filling” in respect of Bunker Structure Work.</del></p> <p>9. <del>Boiler means HRSG or WHRB or any other types of Steam Generator</del></p> <p>10. <del>Critical/Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass, LP Bypass lines</del></p> <p>11. <del>For the purpose of evaluation of the PQR, one MW shall be considered equivalent to 3.5TPH where ever rating of HRSG/BOILER is mentioned in MW. Similarly, where ever rating of Gas Turbine is mentioned in terms of Frame size, ISO rating in terms of MW shall be considered for evaluation.</del></p> <p>9. <del>In case the experience/PO/WO certificate enclosed by bidders do not have separate break up prices for the E&amp;C portion of Electrical and CI Works, (i.e. the certificates enclosed are for composite order for supply and erection of Electrical &amp; CI and other works if any), then value of Erection and Commissioning for the Electrical &amp; CI portion shall be considered as 15% of the supply &amp; erection of Electrical &amp; CI, unless otherwise specifically indicated in the PQR.</del></p> <p>10. <del>Scope for capital overhaul of STG shall cover Bearing Inspection work and overhauling of all cylinders of the Turbine unless otherwise specifically indicated in the PQR.</del></p> <p>11. <del>In case the tendered scope is not a Pulverised Fuel Boiler, experience of Oil/Gas Fired Boilers also can be considered unless otherwise specifically indicated in the PQR.</del></p>

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

**ANNEXURE - II**

**CHECK LIST**

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

1	Name and Address of the Tenderer		
2	Details about type of the Firm/Company		
3	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Fax No:	
4	EMD DETAILS	DD No:                      Date : Bank :                      Amount: <u>Please tick ( √ ) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
		APPLICABILITY	BIDDER REPLY
5	Whether the format for compliance with <b>PRE QUALIFICATION CRITERIA</b> (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
6	Whether Audited profit and Loss Account for the last three years submitted	Applicable	YES/NO
7	Whether Copy of PAN Card submitted	Applicable	YES/NO
8	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable	YES/NO
9	Integrity Pact	Not Applicable	Not Applicable
10	Declaration by Authorised Signatory	Applicable	YES/NO
11	Whether No Deviation Certificate submitted	Applicable	YES/NO
12	Whether Declaration confirming knowledge about Site Conditions submitted	Applicable	YES/NO
13	Whether Declaration for relation in BHEL submitted	Applicable	YES/NO
14	Whether Non Disclosure Certificate submitted	Applicable	YES/NO
15	Whether Bank Account Details for E-Payment submitted	Applicable	YES/NO
16	Capacity Evaluation of Bidder for current Tender	Not Applicable	YES/NO
17	Tie Ups/Consortium Agreement are submitted as per format	Not Applicable	Not Applicable
18	Whether Power of Attorney for Submission of Tender/Signing Contract Agreement submitted	Applicable	YES/NO
19	Whether Analysis of Unit rates submitted	Applicable	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE

DATE:

**AUTHORISED SIGNATORY**

**(With Name, Designation and Company seal)**

**ANNEXURE III**

**IMPORTANT INFORMATION**

1. The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site ( [www.bhel.com](http://www.bhel.com) ---> Tender Notification -> List of Banned Firms )

1097

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



## TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

---

SI No	DESCRIPTION	Chapter	No. OF PAGES
<b>Volume-IA</b>	<b>Part-I: Contract specific details</b>		
1	Project Information	Chapter-I	1
2	Scope of Works	Chapter-II	5
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III	7
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV	1
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V	1
6	Time Schedule	Chapter-VI	2
7	Terms of Payment	Chapter-VII	1
8	Taxes and other Duties	Chapter-VIII	2
9	Tender Drawings	Chapter-IX	1

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter - I: Project Information**

<b>1.0</b>	<b>Project Information</b>
<b>1.1</b>	<p><b>INTRODUCTION</b></p> <p>BHEL is going to install a Power Equipment Fabrication Plant at Sakoli Tehsil, district Bhandara of Maharashtra State. Before setting up a fabrication unit, geotechnical works like soil Investigation, topographical survey and water diving tests have to be carried out to ensure the land profile, bearing capacity &amp; properties of soil and the availability of water in the site area.</p> <p><b>Site information</b></p> <p>a) Location : Tehsil : Sakoli Dist : Bhandara State : Maharashtra</p> <p>b) Latitude : 21° 05' 00"N</p> <p>c) Longitude : 79° 59' 00" E</p> <p>d) Nearest Railway Station : Soundad- 10 Kms away from Sakoli</p> <p>e) Nearest Village : Sakoli Dist : Bhandara State : Maharashtra</p> <p>f) Nearest Seaport : Mumbai</p> <p>g) Nearest Airport : Nagpur (around 99 kms from Sakoli)</p> <p>h) Access Road : The site is located in Sakoli Tehsil, district Bhandara of Maharashtra State. Sakoli is located on Hazira-Kolkata NH-6. Sakoli is well connected to the major and minor cities. The National Highway 6 mainly connects Nagpur and Kolkata (via Bhandara, Deori, Jabalpur etc).</p>
<b>1.2</b>	<p><b><u>CLIMATIC CONDITIONS</u></b></p> <p><b>1. Seismic data</b></p> <p>a. Seismic Intensity : As per IS: 1893-2002</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Works

---

### 2.0 SCOPE OF WORK

The scope of work comprises of but not limited to the following: -

#### 2.0.1 Carrying out topographical and contour survey and quantity calculation for site leveling work at Power equipment fabrication plant

a) Formation of Gridlines:

Orientation of grid line shall be based on magnetic north. Accurate spot levels of natural ground shall be taken by Total Station and contour shall be traced at 30m intervals. The boundary markers shall be marked as boundary markers and identify in the survey report. The boundary markers shall be placed at all corners as required.

b) Planimetric dimension of the major Topographic Features:

- Any paved, WBM and mud roads, cart tracks, railways, location of revenue stones, water bodies (past and present), wells, ponds, streams, canals, ditches, underground storage, electrical and telephone distribution network including the location of poles/ pylons, foot prints of structures, tanks, culverts, pipelines, bridges, compound wall, fences, indicated location of major trees with girth greater than 0.5m, shadow, species, dense bushes, shrubs, rock out cropping, and other natural features taken by the Electronic Digital Total Station.
- Details from FMB sketches shall have digitization and superimposing the Engineering Survey Drawing onto the FMB sketches layout of the project area.
- The entire mapping exercise shall be carried out with an angular accuracy of 1".
- The drawings showing the boundary dimension, location of boundary measurements, location of topographical features, subtended angles at the boundary vertices, foot prints of existing structures and the contour lines having been drawn to vertical interval 0.25m.
- The Survey drawings shall be drawn using Auto CAD (latest Version) to Plan scale 1:1000 and the print outs on 90 GSM quality tracing paper to suitable ISO Standard size (as one set of original reproducible hard copy), two sets of non reproducible hard copies in 90 GSM Milk White paper and one soft copy in a format compatible with the most current version of Auto Cad. (Preferably 2012) shall be submitted.

#### Terms & Conditions:

- Barren land (approximately around 300 acres) obtained on lease basis allotted by Maharashtra Industrial Development Corporation will be handed over for surveying and contouring.
- FMB sketches for the above land will be provided for superimposing the Engineering drawing onto the FMB sketches to locate the SF No. of any structure in the project site.
- No advance payment will be given. The payment will be released after completion of entire work and acceptance of the entire survey, submitted drawings, soft copy, etc.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Works

---

- If the service tax is applicable for this contract work, the same will be reimbursed on production of valid document proof for having paid service tax to the authorities concerned by the tenderer.

### 2.0.2 Soil Investigation works at Power equipment fabrication plant

The following laboratory tests will be conducted:

- a) Unconfined compressive strength of cohesive soil
- b) Direct shear Test
- c) Liquid limit, Plastic Limit & Plasticity index
- d) Swell test
- e) Consolidation test
- f) Bearing ratio of laboratory compacted soil.
- g) Poisson's ratio
- h) Particle size analysis
- i) Specific Gravity
- j) Classifications of soil
- k) Moisture density relation.
- l) Coefficient of uniform elastic compression value of soil
- m) Chemical test on soil

If the service tax is applicable for this contract work, the same will be reimbursed on production of valid document proof for having paid service tax to the authorities concerned by the tenderer.

#### Terms & Conditions:

- Boring in soil will be carried out using hand operated auger down to specified depth.
- All the laboratory tests shall be conducted as per relevant B I S / A S T M specifications.

### 2.0.3 Water diving and yield test in order to carry out comprehensive study for water availability at fabrication plant site with suitable rotary core drilling unit (Hydraulic feed).

All the above jobs shall be as per BHEL Engineer's instructions, drawings, detailed specification and respective bill of quantities furnished in the Rate Schedule.

All the items in BOQ shall be read in conjunction with the relevant Technical Specification and work shall be carried out accordingly. All the report shall be submitted in the prescribed proforma as mentioned in Technical specification including graphical representation, calculation, Log-sheets etc. & no extra claim shall be entertained on this account. **Preparation and submission of draft report in 2 copies and final report in 3 hard copies and 2 soft copies on CD after the approval of draft report including all field records, laboratory test results, graphs, analysis of test results and recommendation etc. all complete as per specification.**

Agency has to get their Interim as well as Final report approved by **BHEL**. Final report shall be submitted in sufficient copy (in hard as well in soft form) as described elsewhere in this tender specification.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Works

---

**Bidders to please note that Quoted Rate shall be inclusive of all the above aspect.**

### **2.1 RESPONSIBILITY OF CONTRACTOR**

2.1.1 The contractor shall engage all the unskilled, skilled, especially skilled labour and supervisory staff for the work. Only trained and competent personnel with previous experience in the job shall be employed. However, BHEL reserves the right to decide on the suitability of the workers and other personnel who will be employed by the contractor. BHEL reserves the right to insist on removal of any employee of the contractor at any time, if they found him unsuitable. The contractor shall be bound to follow the instruction of BHEL.

2.1.2 It is the responsibility of the contractor to engage his workmen in shifts and /or on overtime basis for achieving the target set by BHEL. This target may be set to suit BHEL's requirements or to advance date of completion of events or due to other reasons. The decision of BHEL in regard to setting the targets will be final and binding on the contractor.

2.1.3 Contractor shall employ only qualified and experienced engineers/supervisors for this job. They shall have professional approach in executing the work having adequate knowledge and experience in the fields. Contractor shall give an organization chart indicating the staffing pattern.

2.1.4 Bidders should have their own well established laboratory for conducting various tests as per scope of work mentioned in the BOQ.

2.1.5 The contractor is required to quote their rates inclusive of cost of all materials, T&Ps, labour, etc. BHEL reserves the right to inspect and reject any T&P not found satisfactory.

### **2.2 ACCOMMODATION, DRINKING WATER & LOCAL TRANSPORTATION FOR LABOUR / OTHER EMPLOYEES**

BHEL will NOT provide any space for labour colony. Contractor shall make his own arrangements for accommodation with necessary facilities such as drinking water, sanitation and lighting etc for his workmen and the staff. The electricity for labour accommodation shall be arranged by the contractor on his own. Also, the contractor has to make his own arrangement for transportation of his workmen and other employees. BHEL shall not provide any facility in this regard

#### **2.2.1 TOOLS AND TACKLES**

##### **2.2.1.1**

Contractor is required to provide all necessary Tools and Plants (T&P), measuring instruments and handling equipments for this scope of work. BHEL is not providing any T&P for this work.

##### **2.2.1.2**

The contractor shall provide all the necessary scaffolding materials, temporary structures and necessary safety devices etc, during execution of the work.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Works

---

### 2.2.1.3

Timely deployment of adequate quantity of T&P is the responsibility of the contractor. The contractor shall be prepared to augment the T&P at short notice to match the planned programme and to achieve the milestones.

### 2.2.2 CONSUMABLES

#### 2.2.2.1

The contractor shall provide all consumables required for carrying out the work covered under this scope of work excepting those which are specifically indicated as BHEL supply.

#### 2.2.2.2

All consumables, to be procured and used for the work shall have prior approval of BHEL engineer in regard to brand and quality specification.

### **2.3 ACCOMMODATION, DRINKING WATER & LOCAL TRANSPORTATION FOR THE LABOUR / OTHER EMPLOYEES**

- a) Development of the land and construction of labour colony, with arrangements of lighting, drinking water, and sanitation, electricity etc is in contractor's scope. As such BHEL will not provide any accommodation.
- b) For drinking water contractor has to make his own arrangement including digging of bore-well if required.
- c) The contractor has to make his own arrangement for transportation of his workmen and other employees. They have to carry / transport to their laboratory, the various samples taken out during the geotechnical investigation at site for lab testing within the quoted rate. BHEL shall not provide any facility in this regard.

### **2.4 FIELD OFFICE**

#### 2.4.1

Contractor shall make his own arrangements for field office and stores for accommodating necessary equipments, tools room for execution of the work. Only open space will be provided by BHEL free of charges within the project premises at the available location.

#### 2.4.2

On completion of work, all the temporary buildings, structures, etc shall be dismantled and levelled and debris shall be removed as per instruction of BHEL by the contractor at his cost. In the event of his failure to do so, the same will be arranged to be removed and expenditure thereof will be recovered from the contractor. The decision of BHEL engineer in this regard shall be final. However, the scope of dismantling and levelling the area is limited only to the contractor's site office, yard and other spaces occupied by the contractor.

### **2.5 AREA LIGHTING**

#### 2.5.1

Contractor shall arrange adequate floodlights, hand lamps and area lighting. Provision of distribution lines for lighting from the single point to the required place with proper distribution boards, observing the safety rules laid down by the electrical authorities of the state shall be done by the contractor including all the materials like cables, fuses, switch boards etc

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Works

---

### **2.6 CONSTRUCTION POWER & WATER**

No water and electric power shall be supplied to the contractor for the work. It shall be the contractor's responsibility to arrange for water and electricity required for the work and to arrange for diesel generators as required at his own cost. The quoted rates shall be inclusive of the same.

#### **Construction Water**

The contractor shall make his own arrangement for construction water & drinking water by drilling suitable bore wells or any other arrangement at his cost.

### **2.7 RESPONSIBILITIES WITH REGARD TO LABOUR EMPLOYMENT ETC.**

#### **2.7.1**

Refer clause 2.8 of General Conditions of Contract in this regard.

#### **2.7.2**

Contractor shall also comply with the requirements of local authorities/ project authorities calling for police verification of antecedents of the workmen, staff etc.

#### **2.7.3**

BHEL may insist for witnessing the regular payment to the labour. They may also like to verify the relevant records for compliance with statutory requirements. Contractor shall enable such facilities to BHEL.

#### **2.7.4**

Contractor shall provide at different elevation suitable arrangement for urinal and drinking water facility with necessary plumbing & disposal arrangements including construction of septic tank. These installations shall be maintained in hygienic condition at all times.

#### **2.7.5**

If at any time during the execution of work, it is noticed that the work is suffering on account of non-availability/shortfall in provision of resources from the contractor's side BHEL will make suitable alternate arrangements at the risk and cost of contractor. The expenditure incurred with overheads thereby shall be recovered from the contractor.

### **2.8 SUBMISSION OF PERIODICAL REPORTS**

Contractor shall submit periodical reports in respect of following aspects of operation:

- 1) Availability and utilization of contractor's Tools & Plants
- 2) Daily manpower reports
- 3) Daily progress reports of activities & incidents
- 4) Calibration reports
- 5) Records of wages payment
- 6) Any other report/record as may be specified by BHEL.

BHEL at site will suggest formats for these reports.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: Scope of Works

---

### **2.9 INDUSTRIAL RELATIONS AND LABOUR LAWS**

#### 2.9.1

An industrial relations supervisor shall coordinate for the implementation of local labour laws, maintenance of records as required by contract labour (regulation and abolition act) and also coordinate with the local labour authorities. Contractor has to ensure minimum wages payment to their labours as per the rule of the state and they have to produce documentary evidence to that effect to BHEL.

#### 2.9.2

Contractor shall provide the names and details of Engineer/ Supervisors at the time of mobilization to BHEL as per the proposed organization chart.

#### 2.9.3

In case at any time the contractor is not in a position to deploy the required Engineers/Supervisors due to any reason, BHEL shall have the option to deploy their Engineers/supervisors. The expenditure incurred with overheads on this account will be recovered from the contractor's bills.

#### 2.9.4

The contractor's supervisory staff shall execute the work in the most substantial and workmanlike manner in the stipulated time. Accuracy of work and aesthetic finish are essential part of this contract. They shall be responsible to ensure that the assembly and workmanship conform to dimensions and tolerances given in the drawings/ instructions given by BHEL Engineer from time to time.

#### 2.9.5

The supervisory staff employed by the contractor shall ensure proper outturn of work and discipline on the part of the labour put on the job by the contractor and in general, see that the works are carried out in a safe and proper manner and in coordination with other labour and staff employed directly by BHEL or other contractors of BHEL or BHEL's Client.

#### 2.9.6

Contractor will deduct the necessary amount from his employees towards provident fund and contribute the equal amount as per Government of India rules. This amount will be deposited regularly to the Provident Fund Commissioner and an account code obtained. Contractor shall submit the above account code duly certified by PF Commissioner to BHEL project in-charge. Also all other employees' benefits are to be borne by the contractor as per statutory laws.

#### 2.9.7

The contractor shall obtain independent Labour License under the Contract Labour (regulation and abolition) Act from the concerned authorities based on the certificate (form-V) issued by BHEL.

#### 2.10.8

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter – II: Scope of Works

---

The contractor shall pay for all taxes, fees, license charges, local body clearance, duties, tools, royalty, commissions and other charges, Gate passes which may be leviable on account of his operation in executing the contract. In case BHEL is forced to make any such payments, BHEL Shall have the right to recover the same from Contractor's bill.

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

SI.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.1	<b>ESTABLISHMENT</b>			
3.1.1	<b>FOR CONSTRUCTION PURPOSE:</b>			
a	Open space for office (as per availability)	Yes		
b	Open space for storage (as per availability)	Yes		
c	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
d	Bidder's all office equipments, office / store / canteen consumables		Yes	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc		Yes	
f	Fire fighting equipments like buckets, extinguishers etc		Yes	
g	Fencing of storage area, office, canteen etc of the bidder		Yes	
3.1.2	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			
a	Open space for labour colony (as per availability)		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Chapter – III: Facilities in the scope of Contractor/BHEL

Sl.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART I</b>			
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2.0	<b>ELECTRICITY</b>			
3.2.1	<b>Electricity for construction purposes 3 Phase of Voltage 415V (To be specified whether chargeable or free)</b>			
a	Single point source		Yes	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	<b>Electricity for the office, stores, canteen etc of the bidder (to be specified whether chargeable or free)</b>			
a	Single point source		Yes	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Chapter – III: Facilities in the scope of Contractor/BHEL

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.3	<b>Electricity for living accommodation of the bidder's staff, engineers, supervisors etc</b>			
a	Single point source		Yes	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.3.0	<b>WATER SUPPLY</b>			
3.3.1	<b>For construction purposes: (to be specified whether chargeable or free)</b>			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	<b><u>Water supply for bidder's office, stores, canteen etc</u></b>			

BHEL-PSWR

Tender Specification No: BHE/PW/PUR/SAKHM-GEO/1097  
Technical Conditions of Contract –Volume I A (Part I: Contract Specific Details)

Page 29

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

SI.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART I</b>			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.3	<b><u>Water supply for Living Purpose</u></b>			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.4.0	<b>LIGHTING</b>			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

SI.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART I</b>			
c	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
3.5.0	<b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>			
a	Telephone, fax, internet, intranet, e-mail etc		Yes	
3.6.0	<b>COMPRESSED AIR wherever required for the work</b>			<b>Not Required</b>
3.7.0	<b>Demobilization of all the above facilities</b>		<b>YES</b>	
3.8.0	<b>TRANSPORTATION</b>			
a	For site personnel of the bidder		Yes	
b	For bidder's equipments and consumables (T&P, Consumables etc)		Yes	

SI.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART II</b>			
	<b>3.9.0 ERECTION FACILITIES</b>			

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

---

SI.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART II</b> <b>3.9.0 ERECTION FACILITIES</b>			
3.9.1	Engineering works for construction:			NOT APPLICABLE
A	Providing the erection/constructions drawings for all the equipments covered under this scope			NOT APPLICABLE
B	Drawings for construction methods			NOT APPLICABLE
C	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes			NOT APPLICABLE
D	Shipping lists etc for reference and planning the activities			NOT APPLICABLE
E	Preparation of Geotech. testing schedules and other input requirements		Yes	
F	Review of performance and revision of schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
G	Weekly schedules based on SI No. (E)		Yes	
H	Daily erection / work plan based on SI No. (g)		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: Facilities in the scope of Contractor/BHEL**

---

SI.No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>PART II</b> <b>3.9.0 ERECTION FACILITIES</b>			
I	Periodic visit of the senior official of the bidder to site to review the progress so that works are completed as per schedule.		Yes	
J	Preparation of pre-assembly bay			NOT APPLICABLE
K	Laying of racks for gantry crane if provided by BHEL or brought by the contractor/bidder himself			NOT APPLICABLE
L	Arranging the materials required for preassembly			NOT APPLICABLE

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – IV: T&Ps and MMEs to be deployed by Contractor**

---

**A: TOOL & PLANTS**

<b>DESCRIPTION</b>
<p>1) Shell and auger boring set –as per requirement.</p> <p>2) Rotary core drilling unit (Hydraulic feed) - 1 no. (for boring required for water diving test)</p> <p>3) Standard cone penetration test equipment - 20T capacity – 1 No.</p> <p>5) Field permeability test set up – 1 No.</p> <p>6) Menard pressure meter or equivalent set up with limit pressure of 80kg/sq.cm. – 1 No.</p> <p>7) Electrical resistivity test set up – if required</p> <p>8) Tools for water diving tests as per requirement.</p>
<p><b>NOTE</b></p> <p>The above list is only indicative and not exhaustive. Arrangement for any other T and P required for completion of the job shall be the responsibility of the contractor and shall be arranged by him. Additional equipments shall be mobilized if required as per the directions of the engineer-in-charge to match the work schedule.</p>

**B: MEASURING AND MONITORING DEVICES (MMD):**

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

**NOTE:**

THIS ABOVE LIST IS ONLY INDICATIVE AND NEITHER EXHAUSTIVE NOR LIMITING. QUANTITIES INDICATED ABOVE ARE ONLY THE MINIMUM REQUIRED. CONTRACTOR SHALL DEPLOY ALL NECESSARY T&P TO MEET THE SCHEDULES & AS PRESCRIBED BY BHEL ENGINEER AND REQUIRED FOR COMPLETION OF WORK.

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Chapter – V: T&Ps and MMEs to be deployed by BHEL on sharing  
basis

---

**BHEL WILL NOT PROVIDE ANY MATERIAL OR ANY T & P's FOR THIS WORK**

TECHNICAL CONDITIONS OF CONTRACT (TCC)  
Chapter – VI: Time Schedule

---

**6.1 TIME SCHEDULE & MOBILIZATION**

**6.1.1 INITIAL MOBILIZATION AND TENTATIVE SCHEDULE**

Contractor shall reach site, make his site establishment and be ready to commence the work **within two weeks** from the date of fax Letter of Intent or as per directions of Construction Manager/ Project Manager of BHEL.

The contractor has to subsequently augment his resources in such a manner that the entire related works are completed to achieve the following **tentative** schedule:

**Milestone activities - Break up activities completion period:**

SR. NO.	MILESTONE ACTIVITY	PERIOD
1	<b>Completion of</b> bore holes, core drilling in rocks, standard Penetration Test, and necessary laboratory tests such as determination of bulk/dry density and moisture content, sieve analysis, classification of soils, liquid limit and plastic limit, plasticity index, specific gravity, swell test, unconfined compression test, direct shear test, consolidation test, standard proctor compaction test, CBR test, chemical analysis, <b>Topographical survey and contour mapping, water diving tests</b> and submission of preliminary report covering the recommendation of type of foundations to be adopted. Preliminary report shall be submitted to <b>BHEL-Nagpur</b> with copy to respective site.	45 days from the date of issue of LOI
2	Completion of balance field work and laboratory tests and submission of draft report. Draft report shall be submitted to <b>BHEL Nagpur</b> and respective site.	60 days from the date of issue of LOI

THE OVERALL CONTRACT PERIOD SHALL BE **60 (SIXTY) DAYS**.

**Final Report shall be submitted within 15 days from the date of receipt of BHEL's comments on Interim report by the contractor.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

---

### 6.1.2

In order to meet above schedule and other intermediate targets/activities as set by BHEL Engineer In charge at site, contractor shall arrange all necessary resources and work force in consultation with BHEL engineer at site to undertake works concurrently in all possible fronts as made available to contractor.

### **Start of Contract Period and Duration**

The total contract period for completion of entire work s as per tender specification shall be 60 **(Sixty) Days** from the date of start of first activity on site.

**DATE OF START OF CONTRACT PERIOD SHALL BE THE DATE OF START OF FIRST ACTIVITY ON SITE.**

The contractor shall complete all the work in the scope of this contract within the contract period.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VII TERMS OF PAYMENT

---

### **Stages of Progressive Payments**

BHEL will release the agreed item rates as per the following break up.

- 1.0 40% of item rate of the measured quantity will be paid on receipt of preliminary soil report against contractor's invoice.
- 2.0 Next 40% of item rate of the measured quantity will be paid on receipt of draft final report and against contractor's invoice.
- 4.0 Balance (20%) of item rate on receipt of final report and acceptance thereof by BHEL, against contractor's invoice.
- 5.0 All invoices shall be submitted in duplicate.

**Note: All the reports of this work shall have the acceptance of BHEL. As such payments shall be released on acceptance of the reports by BHEL.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII TAXES & OTHER DUTIES

---

### 8.0 TAXES, DUTIES, LEVIES (Consolidated Rev 02 dated 20/09/2012)

#### 8.1 'Enabling Works'

The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit. **( i.e. rates quoted by bidder shall be inclusive of Service Tax, VAT/WCT and all other taxes and duties )**

However, Since the proposed work is in the nature of 'Works Contract service' as per Service tax law, Hence, For non-corporate contractors being Individual, HUF, Proprietary Firm, Partnership Firm or Association of Persons (AOP), BHEL shall recover the applicable Service Tax under reverse charge mechanism from the contractor and remit the same with the Government as per the provisions of Law. Necessary advice/confirmation of remittance shall be issued to the contractor. The contractor shall not be eligible for any refund/reimbursement of such service tax from BHEL. It shall be the responsibility of the contractor to submit proper invoice giving all the requisite details as per Service Tax Law for the determination of the service tax liability of BHEL under reverse charge mechanism. BHEL reserves the right to determine such liability based on the invoice submitted by the contractor or otherwise independently and remittance of the same with the Government.

#### 8.2 New Taxes/Levies

In case the Government imposes any new levy/tax on the output service/ goods/work after award of the contract, the same shall be reimbursed by BHEL at actual.

In case any new tax/levy/duty etc. becomes applicable after the date of Bidder's offer, the Bidder/Contractor must convey its impact on his price duly substantiated by documentary evidence in support of the same **before opening of Price Bid**. Claim for any such impact after opening the Price Bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his price bid.

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

### Chapter-VIII TAXES & OTHER DUTIES

---

#### **8.3 BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996 (BOCW Act) AND RULES OF 1998 READ WITH BUILDING & OTHER CONSTRUCTION WORKERS CESS Act, 1996 & CESS RULES, 1998.**

In case any portion of work involves execution through building or construction workers, then compliance to the above titled Acts shall be ensured by the contractor and contractor shall obtain license and deposit the cess under the Act. In the circumstances it may be ensured as under:-

- i. It shall be the sole responsibility of the contractor in the capacity of employer to forthwith (within a period of 15 days from the award of work) apply for a licence to the Competent Authority under the BOCW Act and obtain proper certificate thereof by specifying the scope of its work. It shall also be responsibility of the contractor to furnish a copy of such certificate of licence / permission to BHEL within a period of one month from the date of award of contract.
- ii. It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under these act and rules including that of payment / deposit of 1% cess on the extant of work involving building or construction workers engaged by the contractor within a period of one month from the receipt of payment.
- iii. It shall be the responsibility of the sub-contractor to furnish the receipts / challans towards deposit of the cess together with the number, name and other details of beneficiaries (building workers) engaged by the sub-contractor during the preceding month.
- iv. It shall be the absolute responsibility of the sub-contractor to make payment of all statutory payments & compensations to its workers including that is provided under the Workmen's Compensation Act, 1923.

## TECHNICAL CONDITIONS OF CONTRACT (TCC) Chapter-IX DRAWINGS

---

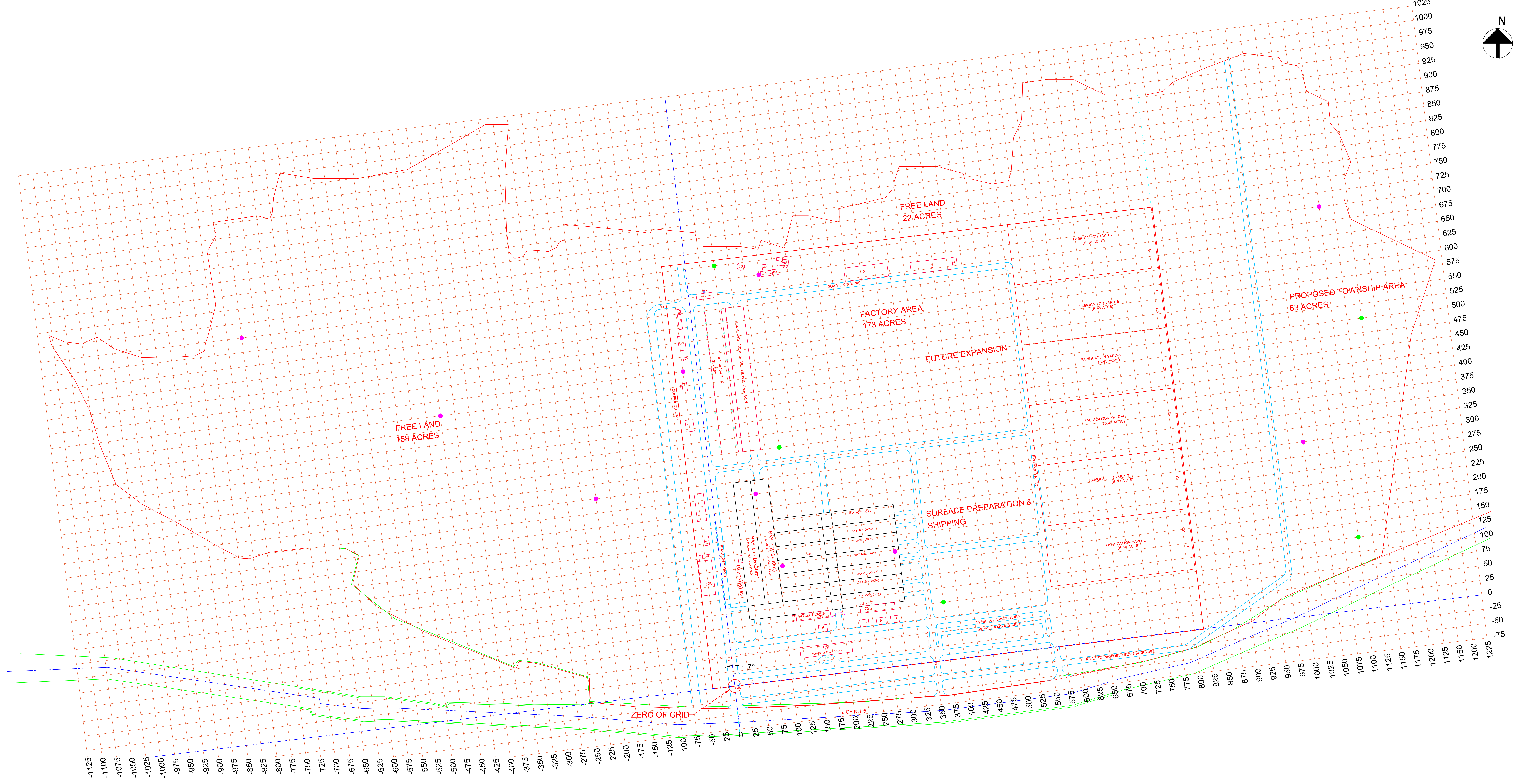
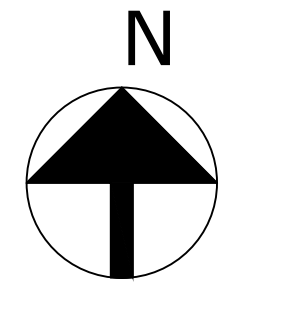
The list of drawings is as mentioned below:-

SN	Title	Document ref. no.
1	Layout showing the location of water diving system and soil investigation points	9-TP-CEG-00987
2	Grid Pillar/Reference Pillar/Bench Mark Pillar	PE-TS-F70-601-001 (Figure-2)

**Note: -**

The above listed drawings are tentative and strictly for tender purpose only. Change in the drawing, if any, will be intimated during execution. These drawings are the property of BHEL and should not be made use of by the contractor except for the purpose of implementing this contract. All these drawings should be returned to BHEL on completion of the work. The interpretation of BHEL engineer regarding the details shown in the drawing shall be final, conclusive and binding.

All dimensions are in metres



- LEGEND**
- SOIL SAMPLE BORE HOLE - 10 Nos
  - WATER YIELD TEST BORE HOLE - 5 Nos

TYPE OF PRODUCT OR NAME OF CUSTOMER/PROJECT <b>POWER EQUIPMENT FABRICATION PLANT, SAKOLI, BHANDARA DISTRICT</b>		NAME BHARAT HEAVY ELECTRICALS LTD	
UNIT: HIGH PRESSURE BOILER PLANT TIRUCHIRAPALLI - 620014		SIGNATURE AARUVR YOGAA T	
DEPT CIVIL		DATE 25-08-12	
GRADE OF UNITS DIM C/M/F		NO. OF VAR 01	
SCALE 		REF TO ASSY / OLD DWG 9-TP-CEG-00987	
WEIGHT (Kg) U 01		ITEM NO 01	
TITLE <b>LAYOUT SHOWING THE LOCATION OF WATER DIVINE SYSTEM AND SOIL INVESTIGATION POINTS</b>		DRAWING NO : <b>9-TP-CEG-00987</b>	

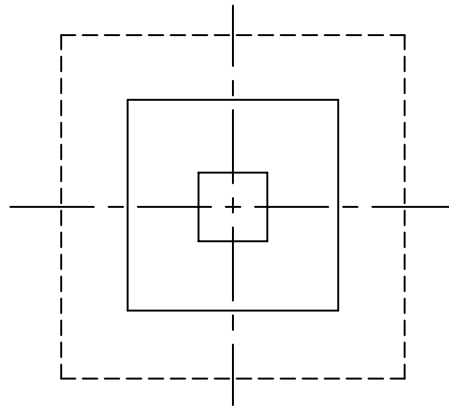
CAUTION: The information on this drawing is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way without the written consent of the company.

NUMBER AND LOCATION OF BORING/REVISED  
 01 25.08.12

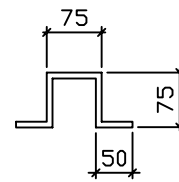


TECHNICAL SPECIFICATION  
FOR  
TOPOGRAPHICAL SURVEY

SPEC. NO. PE-TS-F70-601-001
VOLUME II
SECTION D
REV. NO. 0      DATE 12.10.2007
SHEET 11 OF 11



VIEW 1-1



LUG DETAILS

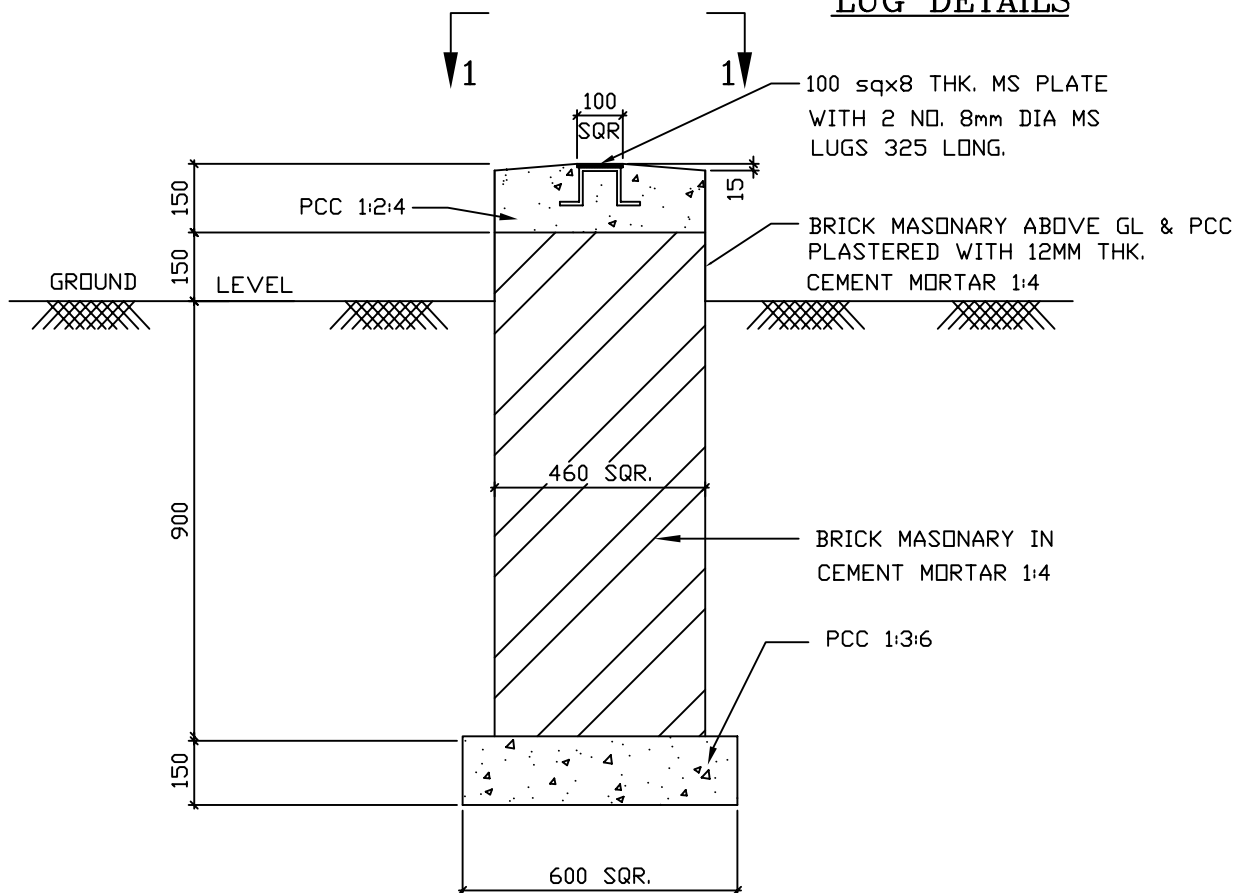


FIG. 2

GRID PILLAR/REFERENCE PILLAR

NOTES

1. ALL DIMENSIONS ARE IN MM
2. ALL MATERIALS AND WORKMANSHIP SHALL BE AS PER SPECIFICATION & RELEVANT IS CODES

DATE 12.10.2007

PREPARED BY: DS

CHECKED BY: CPK

APPROVED BY: KD