

BOTAD NAGARPALIKA

Near Botad Railway Station,
Botad-364710
Phone No: (02849) 251427

Tendering Year: 2024-25

Tender Copy

Name of Work:

Supply & Installation of Pyrolysis Plant (Plastic to Oil plant) machinery for Solid Waste Management under SBM:1 Grant for Botad Nagarpalika (3rd Attempt)

NOTICE INVITING ON - LINE TENDER		
A	Details of Tender :	
1	Estimated Tender Value (Rs.)	Rs.85,50,000=00
2	EMD (1% of Tender Amount In Rs.)	Rs.85,500=00
3	Tender fee In Rs.	Rs.2,400=00 (Non-refundable)
4	Class of Agency	Class 'D' and above/Manufacturer of Pyrolysis Plant
5	Time Limit of Work	6 (Six) Months
6	Validity of tender	120 Days from Date of opening of the price bid.
B	Schedule for - tendering is fixed as under :	
1	Last Date & Time of Online bid submission and Downloading of tender	Dt. 16/08/2024 up to 18.00 hrs.
2	submission of Security Deposit, Tender Fee with supporting documents	Submission of pre-qualification documents in electronic format only through online by scanning. And contractor should have been submitted Only tender fee and E.M.D Through by speed post / R.P.A.D only in sealed cover so as to-reach Botad Nagarpalika on or before Dt.21/08/2024 up to 18.00 hrs.
3	Date of opening of Price Bid	On Date :22/08/2024 At 12:00 Hrs.(if possible)

Botad Nagarpalika

4	Date of commencement of work	Within 15 days from the issuance of work order
5	Security Deposit	5 % of Estimated cost. - 50% i.e. 2.50% of estimated cost shall be paid in the form of DD/FDR immediately after the acceptance of tender. - Remaining 50% i.e. 2.5% of Security Deposit shall be deducted from R.A. Bill
6	Defects liability period	One year from the actual date of completion of work. The amount of security deposit shall be released after the expiry of defects liability period
7	Release of security deposit	The amount of security deposit shall be released after the expiry of defects liability period
8	Release of Performance bond	The performance bond shall become refundable within Thirty (30)days after the final completion.
9	EPF/PF Account information	Contractor shall submit EPF/PF Account number, certificate.
10	Tenderer shall submit their offer i.e. technical bid as well as price bid in Electronic format on www.nprocure.com website.	
9	Submission of Tender fees & EMD : Tender Fee and Bid Security i.e. EMD in the form of DD in favor of "Botad Nagarpalika "from any Nationalized / Scheduled Bank shall be valid up to 120 Days. DD issued after the last date of submission of tender will not be considered as valid or accepted in any case. Botad Nagarpalika will only consider those documents which are submitted online. Tender fee and E.M.D will be accepted physically.	
C	General instructions :	
1	The tenderers are advised to read carefully the "Instruction for Tenderer" and "Eligibility Criteria" & the Important note contained in the tender documents.	
2	The fees for on line tender document will not be refunded under any circumstances.	
3	Tenders without valid Tender document, fees, Earnest Money Deposit (EMD) and which do not fulfill all or any of the condition or submitted incomplete inany respect will be rejected.	
4	Conditional tender shall not be accepted.	
5	This tender notice shall form a part of tender document.	
6	The Internet site address for E-Tender is http://nagarpalika.nprocure.com and that of corporate web site is www.nprocure.com	
7	The Nagarpalika reserves the rights to reject any or all tenders without assigning any reason thereof.	
8	Before the deadline for submission of bids, the Employer may modify the bidding documents by Issuing addenda.	
9	After evaluation of Tech. Bid, price bid of only those bidders would be opened online who are found to be eligible.	
10	Further details/clarification if any required will be available from Chief officer, Botad Nagarpalika Botad Phone No.(02849) 251427	

Botad Nagarpalika

11	Labour license should be submitted within 30 days of work order. (If applicable)
12	Contractor must submit rate analysis if Rate is too much below.
13	Contractor must submit engineer record at time of immediately after the acceptation of tender.
14	Contractors have to submit Declaration Form (Page no.09 of this tender) with stamp and signature along with online submission.
15	Contractors have to submit details of works in progress as mentioned in Annexure-5 (Page no.73 of this tender) of this tender with stamp and signature along with online submission.

PMC
Consultant,

Engineer
Botad Nagarpalika

Chief officer
Botad Nagarpalika

Name of Work: Supply & Installation of Pyrolysis Plant (Plastic to Oil plant) machinery for Solid Waste Management under SBM:1 Grant for Botad Nagarpalika (3rd Attempt)

PRE QUALIFICATION CRITERIA

Sr. No	Description
1	Valid Registration Certificate of Government Approved Contractor Class ' D ' and above/ Manufacture of Pyrolysis Plant/Mechanical Contractor
2	Bank Solvency Certificate current calendar year not less than 20 % of estimated amount
3	Registration of Firms (if applicable)
4	Partnership Deed (if applicable)
5	Pan Card copy
6	GST Registration Certificate copy
7	Contractor shall submit EPF/PF Account number, certificate copy
8	I.T. Return Copy of Last Three Years Only
9	Tender Fee (DD) in favor of "Botad Nagarpalika "
10	EMD (DD) in favor of "Botad Nagarpalika"
11	Turn Over certificate 30 % of Estimated Amount in Average of Last ThreeYear.
12	Contractor should Have an Experience of Work completion (Form 3A) of Similar nature of work of government or semi government in last Five year as under (1) One work of 80% of estimated Amount OR (2) Two works of 50% of estimated Amount OR (3) Three works of 40% of estimated Amount
13	Contractors have to submit Declaration Form of this tender with stamp and signature along with online submission.
14	Contractors have to submit details of works in progress as mentioned in Annexure -5 of this tender with stamp and signature along with online submission. In case of contractor currently don't have any work in progress contractor should submit this certificate with NIL

Note:

In future if Botad Nagarpalika will verify the documents and if they found incorrect/froud, contractor is responsible for punishment whichever is decided by Botad Nagarpalika

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Important notes

- Note :-1** **Damage during the work**
The agency shall have to take care of that existing Municipality drainage lines, water supply lines or telephone cables are not damaged during the execution of work. Any damage during the construction work shall be repaired by the agency at their own cost.
- Note:-2** **Third party inspection of the work.**
All the works covered under this tender package shall be inspected by a third party appointed by Botad Nagarpalika. The charges for the inspection of works by the third party shall have to be borne by the agency whom the tender is awarded.
- Note:-3** **Material Test result**
The process of bill payment will be start after submitting material testing / C.C. Cube testing result. The charges for Material Testing / C.C. Cube Testing shall have to be borne by the agency whom the tender is awarded.
- Note:-4** **Vendor List for Cement (Opc 53 Grade)**
1. J.K.Laxmi
2. Ultratech Cement
3. Ambuja Cement
4. Hathi Cement
5. Sanghi Cement
6. Birla Cement
- Note:-5** **Structural Steel & GI Sheets work**
Structural Steel & GI Sheets is only ISI brand is used & testing report submitted before starting of work.
- Note:-6** **Reinforcement Steel**
TMT fe 500 bar is only ISI brand is used & testing report submitted before starting of work.
- Note:-7** As per Circular No. GST/1017/1097/GST cell (Finance Department, Government of Gujarat) Dated 15-09-2018 agency shall born (1%SGST + 1% CGST) 2% GST which is applicable from Dated 01-10-2018,GST Born by bidder.

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FORM B-1

Name of Work : Supply & Installation of Pyrolysis Plant (Plastic to Oil plant) machinery for Solid Waste Management under SBM:1 Grant for Botad Nagarpalika (3rd Attempt)

1-NOTICE INVITING TENDERS

1. Tender are invited on behalf Botad Nagarpalika. The work of SBM Grant estimated cost of **Rs.85,50,100.00** This estimate however, is given as a rough guide.
2. The work is required to be completed within **6 (six) months** as per the terms of the contract conditions.
3. The contractors whose names are borne of the approved list of contractors of Gujarat State R &B Dept. / W.R.D. in ' **D** ' **Class** & above will be permitted to tender. Not more than one tender shall be submitted by a contractor or by a firm of contractors. No two or more concerns in which an individual is interested as a proprietor and/ or a partner shall tender for the execution of the same work. If they do so, all such tenders shall be liable to be rejected.
4. Bid Document can be downloaded & submitted in Electronic Format on online website : www.nprocure.com (As per Mention page no.1)
5. Copies of other drawings and documents pertaining to tender and signed for the purpose of identification by the Accepting officer or his accredited representative will be open for inspection by tenderers at the following offices during working hours.
(a) Chief Officer, Botad Nagarpalika, Botad.
6. Tenderers are advised to visit the site sufficiently in advance of the date fixed for submission of the tender. A tenderer shall be deemed to have full knowledge of all the relevant documents samples, site etc; whether he inspects them or not.
7. Submission of a tender by tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specification of the work to be done and of conditions and rates at which stores, tool and plant etc. will be issued to him, by Botad Nagarpalika and local conditions and other factors bearing on the execution of the works.
8. The bidder should quote his bid premium or rebate at the end of Schedule-B. If he do not wish to quote premium or rebate, he should indicate "at par" in the blank space preceding "% above / below" in Schedule-B. Thereafter he should work out and indicate the offered bid amount both in words in figures in Schedule-B.
9. **All rates shall be quoted on E-Tendering System with GST. No extra payment for GST, GST included in tender cost.**
10. The tender for the works shall not be witnessed by a contractor or contractors who himself / themselves has/ have tendered or who may and has/have tendered for the same works. Failure to observe this condition shall render the tender of the

contractor tendering, as well as of those witnessing the tender, liable to rejection.

11. The offered bid will be opened (As per Mention page no.1) in the presence of bidders who may choose to remain present in the office of the Bid Opening Authority Specified in Bid documents.
12. A Tenderer shall submit the tender which satisfies each and every condition laid down in this notice and tender documents, failing which the tender will be liable to be rejected.
13. Botad Nagarpalika does not bind itself to accept the lowest or any tender or to give any reasons for the decision.
14. This notice of tender shall form part of the contract documents.

2-FORM B1 (Botad Nagarpalika)

PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS

1. Competency of Tenderer - No contract will be awarded except to responsible bidders capable of performing the class of works contemplated. Before the award of the contract, any bidder may be required to show that he has the necessary facilities, experience, ability and financial resources to perform the work in satisfactory manner within the time stipulated. Contractor may be required to furnish the department with the statement as to their experience and their financial status.
2. Tenderer will be deemed to have inspected the site and to have satisfied as to the nature of all works, all existing roads, water-way and other means of communication and access to and from the site and work and the building that may be required for temporary purpose in connection with the construction, completion and maintenance of the works and must make his own enquiries as to work, yard sites and depot, and dumps and as to acquisition of such additional sites and areas as may be necessary for temporary purpose for construction, completing and maintaining the works.
- 2.1 (i) The Bids shall be offered in Electronic format only on online website www.nprocure.com till the date and time shown on (As per Mention page no.1).
- (i) Payment of Tender Fee and Earnest Money Deposit Demand Draft for EMD and Tender fee respectively shall be submitted in electronic format through online (by scanning) while uploading the bid. This submission shall mean that EMD & tender fee are received for purpose of opening the bid. Accordingly offer of those shall be opened whose EMD & tender fees is received electronically. However for the purpose of realization of D.D. bidder shall send the D.D. in original through RPAD so as to reach to Chief Officer Botad Nagar Palika, Botad within mentioned dates from the last date of uploading.
- 3 **Payment:-**
The tenderer must understand clearly that the rates quoted are for completed works and include all costs due to labour, scaffolding plant, supervision, service works, power, royalties and octroi, GST, etc. , and to include all extras to cover the cost of night work if and when required and no claim for additional payment beyond the price/rates quoted will be entertained and the tenderer will not be entitled subsequently
Contractors to please read this Carefully :
 - (A) The percentage in Schedule 'B' must be given in figures. Amount thus worked out must also be entered in column must be struck out by the tenderer.
 - (B) If the tender is taken in favour of the company, a power of attorney in favour of the person who may have signed the tender for the company must accompany the tender.
 - (C) Solvency certificate of a Bank or a Revenue officer of an amount up to 20% of the tendered cost plus the amount of works on hand still to be executed will have to be produced by the contractor.
4. The Contractor shall have to furnish PAN and intimate I.T. ward under which he is assessed.
5. Copies of certificate as regards previous experience, if any, must accompany the tender.
6. Declaration showing all works on hand with the Contractor and the value of works that remains to be executed in each case must accompany the tender.
7. In addition to the above, the tender will also be liable to be rejected outright it.
 - (i) The bidder proposes any alteration in the work specified or in the time allowed for carrying out the work or any condition or correction made in any code or mode of Schedule-B or Specifications.

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DECLARATION FORM

- (i) I/We hereby declare that I/We have visited the site and fully acquainted myself/ourselves with the local situations regarding materials, labour and other factors pertaining to the work before submitting this tender.
- (ii) I /We hereby declare that I/We have carefully studied detail of nivida, the conditions of contract, specifications and other documents of this work and agree for execute the same accordingly.
- (iii) I /We hereby declare that due to Covid-19 or any other Natural Calamities I/We agree to obey all instructions from Central / State Government and Botad Nagarpalika for related to this work.
- (iv) I /We hereby declare that In future if Botad Nagarpalika will verify the documents and if they found incorrect/froude I/We responsible for punishment whichever is decided by Botad Nagarpalika.
- (v) I /We hereby declare that I have read all the important notes in the tender which I have aware.

Signature of the Contractor

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works proposed to be executed by the contractor shall be notified in a form of invitation to tender pasted on a board hung up in the office of the Chief Officer Botad Nagarpalika and signed by the Chief Officer Botad Nagarpalika.

This form will state work to be carried out as well as the date of submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender and the amount of the security deposit to be paid by the successful tenderer and percentage, if any, to be deducted from bill. It will also state whether a refund of quarry fees, royalties, octroi dues and ground rents will be granted. Copies of the specifications, designs and drawing and estimated rates, and any other documents, required in connection with work which shall be signed by the Chief Officer Botad Nagarpalika for the purpose of identification shall also be open for inspection by Contractor at the office of the Chief Officer Botad Nagarpalika during office hours.

Where the works are proposed to be executed according to the specifications recommended by a contractor and approved by a competent authority on behalf of the Botad Nagarpalika, such specifications with designs and drawing shall form part of the accepted tender.

2. The Bidder or the person authorized to sign digitally on behalf of the bidder shall sign the bid document. The copy of legal status of bidder (Partnership Deed or Articles of Association of the company) along with other documents to be dispatched physically.
3. Under no circumstances shall any Contractor be entitled to claim enhanced rate for any items in this contract.
4. Every contract shall, unless exempted in writing by the Chief Officer Botad Nagarpalika concerned, produce along with this tender a solvency certificate of his financial ability from the Collector of the District within which he resides or a Banker's certificate. If he fails to produce such a certificate his tender will not be considered.
5. The measurements of work will be taken according to the usual method in use in the Public Works Department and no proposals to adopt alternative methods will be accepted. The Chief Officer Botad Nagarpalika's decision as to what is the usual method in use in the Nagarpalika Works Department will be final.
6. The Insurance Company's bond will not be accepted against the security deposit.
- 6.A In event of any error or discrepancy in write up of tender documents the contractor will not take any undue advantage of such error or discrepancy and The Chief Officer Botad Nagarpalika shall have powers to interpret and decide correct meaning of contradictory erroneous writing.
7. The contractor will have to construct a shed for storing controlled and valuable materials issued to him under schedule 'A' of the agreement at work-site having double locking arrangement. The materials will then be taken for use in the presence of the Department person. No materials will be allowed to be removed from the site of work.
8. Controlled materials (Essentiality Certificate)
 - (ii) The contractor shall submit to the Chief Officer on close of every calendar month the monthly returns in the prescribed forms as to the receipts and actual use of the controlled materials during the month.
 - (iii) The contractor shall permit The Chief Officer Botad Nagarpalika or his representative to inspect the stock of the controlled materials stored by him at any time whenever the Chief Officer or his representative so desire (s).
9. The tender for the work shall remain open for a period of **90 days** counted from the last date of on line submission of bid.

5- TERMS & CONDITIONS OF CONTRACT

CLAUSE 1 : Security deposit :-

The contractor shall have to Security deposit of 2.5% of estimated amount within the period of ten days from the date of receipt of acceptance. If the Security deposit is not paid within the specified time, work order shall not be issued till the issue about delay is finally decided by the competent authority.

CLAUSE 2 : Liquidated damages for delay :-

- (i) If the Contractor fails to complete the work under contract by the stipulated date, he shall pay liquidated damages of at the rate of **0.1*** percentage of the contract value per day from the date of delaying the said work up to the date of completion and handing over to the Botad Nagar Palika.
- (ii) However also if the contractor fails to complete any part of the work as designed in Schedule (c) by the time indicated against such part, he shall pay Liquidated damages per day from the date of delaying the said part of the work up to the date of completion of the said designated part at the rates shown in the said schedule of the contract value of such part for such failure till the said designated part is completed.

***AS corrected vide B & C D GR No. TNC-1091- 1B - 10 / (11) - C, dated 29-6-92.**

- (iii) The aggregate maximum of liquidated damages payable under clause No.2 shall not exceed 0.10 Percentage of contract value per day and shall be subject to the maximum amount of ten percentage of the estimated amount put to tender.
- (iv) Delays requiring payment of ten percentage liquidated damages of the amount put to tender for performance shall be sufficient causes for termination of contract and for forfeiture of security deposit including amount of performance bond in respect of works estimated to cost more than Rs.15 lacs, for. Performance and registration of the contractor shall also be kept in abeyance for three years from the date as fixed in all cases. (See Schedule (C))

CLAUSE 3 : Default by Contractor :

If the Contractor shall neglect or fail to proceed with the work with due diligence or if he violates any of the provision of the Contract, the Chief Officer Botad Nagarpalika shall give the Contractor a notice, identifying deficiencies in performance and demanding corrective action. Such notice shall clearly state that it is given under the provision of this clause. After service of such notice, the contractor shall not remove any plant, equipment and material from the site. The Botad Nagarpalika shall have a lien on all such plant, equipment and material from the date of such notice till the said deficiencies have been corrected as mentioned in the said notice.

If the contractor fails to take satisfactory corrective action within ten days after receipt of such notice, the Engineer-in-charge on behalf of Botad Nagarpalika shall terminate the contract in whole. In case the entire contract is terminated, the amount of security deposit and performance bond if any together with the value of the work done but not paid for, shall stand forfeited to the Botad Nagarpalika. The plants, equipment and materials, held under this clause shall then be at the disposal of the Botad Nagarpalika to recover the amount equivalent to the liquidated damages and registration of the contractor shall be kept in abeyance for three years from the date as fixed in all such cases.

The Chief Officer Botad Nagarpalika if necessary shall direct that a part or the whole of such plant, equipment and material be removed from the site within a stipulated period. If the Contractor fails to do so, the Engineer-in-Charge shall cause them or any part of them to be sold holding the net proceeds of such sale to the credit of the Contractor. After settlement of accounts, the lien by the Botad Nagarpalika of the contractor's remaining plant equipment and balances of materials shall be released. Termination of the contract in whole shall be an adequate authority for the Engineer-in-charge to demand discharge of the obligations from the guarantors of the security for the performance.

CLAUSE 4 :

If the progress of any particular portion of the work under Contract is unsatisfactory, The Chief Officer Botad Nagarpalika shall, notwithstanding that the general progress of the work is satisfactory, in accordance with Clause 2 be entitled to take necessary action under Clause 3 after giving the Contractor ten day's notice in writing and the contractor shall have no claim whatsoever for any compensation for any loss caused to him due to such action.

(Clause 1,2,3 and 4 are substituted vide GR NO. TNC -1091/IB-10/(11)-C , dated 15- 10-91 & modified by GR dated 29-10-91 & G.R. No. TNC-1088/IB/18/(13)-C dated 31- 8-94 and No. TNC/10/2002/14-C, dated 28-4-03 and 10-9-03)

CLAUSE 5: Extension of time:

If the contractor shall desire an extension of the time for completion of the work on the ground of his having been unavoidably hindered in its execution or any other ground he shall apply in writing to the Engineer-in-charge before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered whichever is earlier and the Engineer-in-charge may, if in his opinion, believe that there are reasonable grounds for granting an extension, grant such extension as he thinks necessary or proper. The decision of the The Chief Officer Botad Nagarpalika in this matter shall be final

CLAUSE 6 :

As soon as the work is completed the contractor shall give a notice of such completion to the Engineer-in-charge and on receipt of such notice the Engineer-in-charge shall inspect the work and if he is satisfied that the work is completed in all respect then :-

- (i) For all works costing upto Rs.50 lacs (amount put to tender) the final measurements shall be recorded within 45 days from the date of physical completion of the work and the final bill shall be prepared within 45 days from the date of recording final measurement. The completion certificate shall be issued within one month from the date of final measurement subject to the contractor fulfilling his obligation as provided in the contract and subject to the work being complete in all respects.
- (ii) In respect of works costing more than Rs.50 lacs (amount put on tender), the final measurements shall be recorded within 75 days from the date of physical completion of the work and the final bill shall be prepared within 75 days from the date of recording final measurements subject to the contractor fulfilling his obligations as provided in the contract and subject to the work being complete in all respects.

When separate period of completion have been specified for items or groups of items, the Engineer-in-charge shall issue separate completion certificate for such items or groups of items .

No certificate of completion shall be issued nor shall the work be considered to be complete till the contractor shall have removed from the premises, on which the work has been executed, all scaffolding, sheds and surplus materials, except such as are required for rectification of defects; rubbish and all huts and sanitary arrangements required for his workmen on the site in connection with the execution of the work, as shall have been erected by the contractor for the workmen and cleared all dirt from all parts of building(s) in, upon or around which the work has been executed or of which he may have possession for the purpose of the execution thereof and cleared floors, gutters and drains, cased doors and sashes, oiled locks and fastenings labeled keys clearly and handed them over to the Engineer-in-charge or his representative and made the whole premises fit for immediate occupation or use to the satisfaction of the Engineer-in-charge . if the contractor shall fail to comply with any of the requirements of these conditions as aforesaid, on or before the date of completion of the works, the Engineer-in-charge may , at the expenses of the contractor, fulfill such requirements and dispose of the scaffolding, or surplus materials and rubbish etc. as he thinks fit and the contractor shall have no claim in respect of any such scaffolding or surplus materials except for any sum actually released by the sale thereof less the Cost of fulfilling the requirements and any other amount that may be due from the

contractor. If the expenses of fulfilling such requirements is more than the amount realized such disposal as aforesaid the contractor shall forthwith, on demand, pay such excess. The Engineer-in-charge shall also have the rights to adjust the amount of excess against any amounts that may be payable to the contractor.

CLAUSE 7:

No payment shall be made for any work, estimated to cost less than rupees one thousand till after the whole of the said work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand, the contractor shall on submitting a monthly bill therefore, be entitled to receive payment proportionate to the part of the work then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor., All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring bad, unsound, imperfect or unskilled work to be removed and taken away and reconstructed or re-erected, nor shall any such payment be considered as an admission of the due performance of the contractor or any part therefore in any respect or the accruing of any claims, nor shall it conclude, determine, or affect in any way the power of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or effect the contract. The final bill shall be submitted by the contractor within one month of the completion of the work, otherwise the Engineer-in-charges certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

CLAUSE 8 :

The rates for items of works shall be valid only when the items concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of work are accepted as not so completed, the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in preparation of final or on account bill.

CLAUSE 9: Bills to be submitted monthly:

A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all works executed in the previous month and Engineer-in-charge shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose countersignature to the measurement list shall be sufficient warrant and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

CLAUSE 10 :

The contractor shall submit all the bills on the printed forms to be had on application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the agreement or at the partly reduced rates subject to the approval by the Engineer-in-charge in the case of items not completed/executed as per agreements or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender, at the rate here in after provided for such work.

CLAUSE 11:

(1) The contractor shall execute the whole and every part of the work in the most substantial and workman-like manner and both as regards materials and in other respects in strict accordance with specifications.

The contractor shall also confirm exactly, fully and faithfully to the design, drawings

and instructions in writing for the work signed by the Engineer-in-charge. The design and the drawings shall be lodged in the office of the site Engineer-in-charge to which the contractor shall be entitled to have access for the purpose of inspection at such office during office hours. Where the instructions referred to above are not contained in separate letters addressed to the contractor the same shall be recorded in the work-order book, which shall be maintained and kept on the site of the work. The contractor shall be required to sign such entire in the work-order book in token of having noted the instructions. However, if the contractor fails to sign the work-order book for any reason whatsoever, the entry of the instructions in the work-order book shall be deemed to be the due notice to him of the said instructions. The work-order book shall be open for inspections to the contractor on the site of the work during office hours.

- (2) The contractor will be entitled to receive one copy of the accepted tender along with the work order free of cost and will also be entitled to receive three sets of contract and working drawings according to the progress of work as and when needed, free of cost.
- (3) The several documents forming the contract are essential parts of the contract and requirement occurring in one is binding as through occurring in all. They are intended to be mutually explanatory and complimentary and to describe and provide for a complete work.

In the event of any discrepancy in the several documents forming the contract or in any one document, the following order of precedence should apply.

(a) Dimension and quantities:

(i) Drawings, (ii) Schedule-B of the Tender form (iii) specification.

On drawings, figures dimensions, unless obviously incorrect, will be followed in preference to scaled dimensions.

(b) Description : (i) Schedule-B of the Tender form :- (ii) Drawings (iii) Specifications.

In the case of effective description or ambiguity the Engineer-in-charge is entitled to issue further instructions directing in what manner the work is to be carried out. The contractor cannot take any advantage of any apparent error or omission in drawings or specifications and the Engineer-in-charge shall be entitled to make corrections and interpretations as necessary to fulfill the plans and specifications.

CLAUSE 12 :

The Engineer-in-charge shall have power to make any alterations in or addition to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alternation shall not invalidate the contract and additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rate as out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rate as are specified in the tender for the main work.

CLAUSE 13

13.1 Except that when the quantity of any item exceeds the quantity as in the tender by more than 30% the contractor will be paid for the quantity in excess of 30% at the rate entered in the S.O.R. of the year during which the excess in quantity is first executed and for the materials consumed in excess quantity the rate for the materials to be charged would be the basic rate taken into account for fixing the rate for the S.O.R. above instead of the rate stipulated in schedule - A.

13.2. If the additional or altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out.

(i) At the rate derived from the item within the contract which is comparable to the one involving additional or altered class of work, where there are more than one comparable items, the item of the contract which is nearest in comparison with regard to class or classes of the work involved shall be selected and the decision of the Superintending Engineer as to the nearest comparable item shall be final and binding on the contractor.

(ii) If the rate cannot be derived in accordance with (i) above, such class of works shall be carried out at the rate entered in the Schedule of Rates of the Division for the year in which the tender was received, increased or decreased by the percentage by which the tender amount is more or less as compared to the amount arrived at the rates in the "Schedule of Rates" of the Division in the year in which the tender was received. If the Schedule of rates of the Division does not contain all the items the percentage increase or decrease of the tender shall be calculated considering such items which were included in the "Schedule of Rates" of the Division for the year and for materials consumed on such item the rate to be charged would be the basic rate taken into account for fixing the rate in S.O.R. referred to above instead of the rate. Stipulated in Schedule "A"

(iii) If it is not possible to arrive at the rate from (i) and (ii) above, such class of work shall be carried out at the rate decided by the competent authorities on the basis of detailed rate analysis after hearing the contractor before a Committee of two Superintending Engineers stationed at the same place or the nearest place.

If the additional or altered work, for which no rate is entered in the "Schedule of Rates" of the Division is ordered to be carried out before the rate is agreed upon, then the contractor shall within seven days of the date of receipt by him of the order to carry out the work, inform the Engineer-in-charge of the rate, which it is his intention to charge for such class of work and if the Engineer in charge does not agree to this rates, he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider it advisable, provided always that if the contractor shall commence work or incur any expenditure in regard thereof before the rates shall have been determined as lastly herein before mentioned, then in such cases he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of the dispute, the decision of the Superintending Engineer of the Circle shall be final.

Where, however, the work is to be executed according to be the designs, drawings and specification recommended by the contractor and accepted by the competent authority, the alternation above referred to shall be within the scope of such designs, drawing and specifications appended to the tender.

The time limit for the completion of the work shall be extended in the proportion that the increase in the cost occasioned by shall be final and conclusive.

For excess in item of well sinking the rates for sinking in depth beyond the designed depth shall be as per the rate quoted by the contractor in the statement of variation, if no rates of variation in sinking are quoted the rate payable shall be the tender rate for sinking at designed level increased by the difference of schedule of rate for sinking at designed depth and sinking at final depth.

CLAUSE 14:

No claim for any payment of compensation for change or restriction of work :

If at any time after the execution of the contract documents the Engineer-in-charge shall for any reason whatsoever, require the whole or part of the work, as specified in the tender, be stopped for any period or shall not require the whole or part of the work to be carried out at all or to be carried out by the contractor, he shall give notice in writing, stating the fact to the Contractor who shall thereupon suspend or stop the work totally or partially, as the case may be. In any such case, except as provided hereunder, the Contractor shall have no claim to any payment or compensation whatsoever except as provided hereunder on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not so derive in consequence of the full amount of the work not having been carried out, or on account of any loss that he may be put to on account of materials purchased or agreed to be purchased or for unemployment of labour required by him. He shall not have also any claim for compensation by reason of any alteration having been made in the original specifications, drawings, designs and instructions which may involve any curtailment of the work as originally contemplated.

(1) However, the contractor will be entitled for compensation for loss, if any on the date of notice, for the purchased materials or for the contract executed for the material to be purchased for such work. Such compensation will be paid only for actual loss for materials, if such materials so purchased or agreed to purchase is of required quantity/quality and was purchased/ contracted to be purchased only for

the same work. But no compensation shall be granted to contractor on material for which advance has been given to contractor by Botad Nagar Palika. The amount of loss for such claim will be decided by in charge Engineer-in-charge.

- (2) The contractor also will be entitled for compensation of unemployed labourers for 7 days from the date of notice provided that in that opinion of Engineer-in-charge such labourers working for 7 days prior to the notice and would not be in a position to get employment elsewhere within 7 days from the date of such notice. The contractor should try to employ such unemployed labourers at other places from the date of such notice.

In case the Contractor does not agree with the decision of Chief Officer regarding the amount of compensation or loss; it will be open for the contractor to appeal to Superintending Engineer-in -charge within one month from the date of knowledge of such decision. In such case the decision of Superintending Engineer will be final and binding to the Contractor.

The Contractor shall not be entitled for loss of any expected profit of such work. (Vide G.R. NO. SSR/1090/IB/247(2) /C, dated 28-6-1993 as amended by GR of evennumber dated 11-2-1999)

CLAUSE 15 : Action & compensation in case of bad work :

If at any time before the expire of Defects Liability period as detailed in Clause 17-

A. It shall appear to the Engineer-in-charge or his sub-ordinate in charge of the work that/any work has been executed unsound, imperfect or unskilled workmanship or with materials of inferior quality or that any materials or articles provided by him for the execution of the work are unsound , or of a quality inferior to that contracted for or are otherwise not in accordance with the contract, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained for may have been passed, certified and paid for the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part as the case may require, or if so required, shall remove the materials or articles so specified in whole or in part and provide other proper and suitable materials or articles at his own charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate of the rectification for every day not exceeding ten days during which the failure so continues and in the event of any such failure as aforesaid continuing beyond ten days, the Engineer-in-Charge may rectify or remove, and re-execute the work or remove and replace the materials complained of as the case may be at the risk and expense in all respects of the contractor. Should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of, it shall be within his discretion to accept the same at such reduced rates as he may fix therefore. However, the contractor shall be responsible for normal maintenance of the work till the final bill for the work is prepared by the departmental Officer.

Clause 15 A : Defect liability period :

The contractor shall be responsible to make good and remedy at his own expenses any defect which may develop or may be noticed before the period mentioned hereunder from the certified date of completion. The Engineer-in-charge shall give the contractor a notice in writing about the defects and the contractor shall make good the same within 15 days of receipt of the notice. In the case of failure on the part of the contractor, the Engineer-in -charge may rectify or remove or re-execute the work at the risk & cost of the contractor. The Engineer-in-charge shall be entitled to appropriate the whole or any part of the amount of security deposit towards the expenses, if any, incurred by him in rectification, removal or re-execution

CLAUSE 16: Work to be open to inspections - Contractor or responsible agent to be present : -

All Works under or in course of execution or executed in pursuance of the contract shall, at all times be open to the inspection and supervision of the Engineer-in-charge and his

subordinates and the Contractor shall, at all times during the usual working hours, and all other times for which reasonable notice of the intimation of the Engineer-in-charge or his subordinate to visit the works shall have been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing present for that purpose. Orders given to the contractor's duly authorized agent shall be considered to have the same force and effect as if they had been given to the Contractor himself.

CLAUSE 17:

(i) G.R.B. & CD NO. RGN-6090-UO 24 (42)-C, dated 26-11-90.

Employment of a qualified site Engineer by the Contractor. The Contractor shall. Employ full-time technically qualified staff during the execution of this work as under :-

1. Two graduate Civil Engineers and three diploma Civil Engineers when cost of the work to be executed is more than Rs.50 lakhs.
2. One graduate & two Diploma, Civil Engineers when the cost of the work to be executed is more than Rs.15 lakhs but less than Rs.50 lakhs.
3. Minimum two Diploma Civil Engineer when the cost of work is less than Rs.15 lakhs but more than Rs.5 lakhs.
4. Minimum one Diploma Civil Engineers for the work when the cost of work to be executed is less than Rs. 5 lakhs. The Engineer so employed for the Botad Nagarpalika work must have sufficient experience to handle the work independently. Such an Engineer shall have to stay at the site of work and he shall not be entrusted with other duty except this work.

In case the contractor or partner of the contractor firm is a Civil Graduate Engineer, Employment of separate Engineer will not be necessary provided that the Engineer partner himself attends the execution of the work on the site.

CLAUSE 18 : Notice to be given before work is covered up :

The contractor shall give not less than five day's notice in writing to the Engineer-in-charge or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement and if any work shall be covered up or placed beyond the reach of measurement without such notice having and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained , the same shall be uncovered at the contractor's expenses and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

CLAUSE 19:

If the contractor or his workmen, or servants shall break, deface, injure or destroy any part of the building or the work in a question in/on which they may be working or any building , road, fence, enclosure or grassland or cultivated ground contiguous to the premises on which the works or any part thereof is being executed or if any damage shall be done to the work from any causes whatever before damage occurred/caused due to normal flood or rain or if any imperfections become apparent in it within three months from the grant of a certificate of completion, final or otherwise by the Engineer-in-charge , the contractor shall make good the same at own expenses or in default, the Engineer-in-charge may cause the same to be made good by other contractor, and deduct the expenses (of which the certificate of the Engineer-in-charge shall be final) from any sums that may there after become due to the contractor or from his security deposit or the proceeds of sale thereof or a sufficient portion thereof.

CLAUSE 19A :

Neither party shall be liable to the other for any loss or damage occasioned by or arising out of God, such as Unprecedented flood, Volcanic eruption, earthquake or other convulsion of nature and other acts such as but not restricted to general strike, invasion, the acts of foreign countries, hostilities, or war like operations before or after declaration of war,

rebellion, military or Usurped power which prevent performance of the contract and which could not have been foreseen or avoided by a prudent person.

Note: "Unprecedented flood" means the flood crossing the High Flood Level of the past..... Year(s) which is on the available record.

(Modified Vide R& B D.G.R. No/ TNC - 1096 - IB -143 - (16) - C dated 11-1-99)

CLAUSE 20: Contractor to supply plant, ladders, scaffolding etc. and is liable for damage arising from non-provision of lights, fencing etc. :

The contractor shall supply at his own cost all materials (except such special materials if any, as may, in accordance with the contract to be supplied from the Public Works Department Stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding, and any temporary works which may be required for the proper execution of the work whether in the original, altered or substituted form and whether included in the specifications, or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with requirements of the Engineer-in-charge as to any matter or to which under these conditions he is entitled to be satisfied or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of settings out works and counting , weighing and assisting in the measurement or examination at any time and from time to time, of the work or the materials, failing this, the same may be provided by the Engineer-in-charge at the expenses of the Contractor and the expenses may be deducted from any money due to the Contractor under the contract or from his security deposit, or proceeds of sale thereof or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear expenses of defense of every suit, action or other legal proceeding, at law that may be brought by any person for injury sustained. Owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person, or which may, with the consent of the Contractor, be paid in compromising any claim by any such person.

CLAUSE 20A:

The Contractor shall provide suitable scaffolds and working platforms, gangways and stairways, and shall comply with the following regulation in connection therewith.

- (a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
- (b) A scaffold shall not be constructed, taken down or substantially altered except
 - (i) Under the supervision of a competent and responsible person.
 - (ii) appointed by contractor and by competent workers possessing adequate experience in this kind of work.
- (c) All scaffolds and appliances connected therewith and all ladders shall
 - (g) be of sound material
 - (ii) be of adequate strength having regard to the loads and strains to which they will be subjected and
 - (iii) be maintained in proper condition
- (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- (e) Scaffolds shall not be overloaded and so far as practicable the load shall be evenly distributed.
- (f) Before installing the lifting gear on scaffolds, special precaution shall be taken to ensure the strength and stability of the scaffolds.
- (g) Scaffolds shall be periodically inspected by a competent person.
- (h) Before allowing a scaffold to be used by his workmen, the Contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulation herein specified.
- (i) Working platforms, gangways shall -

- (i) be so constructed that no part thereof can sag unduly or unequally.
- (ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping and
- (iii) be kept free from any unnecessary obstruction.
- (j) In the case of working plate forms, gangways working places and stairway at a height exceeding (to be specified)
 - (i) every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.
 - (ii) every working platform and every gangway shall have adequate width, and
 - (iii) every working platform, gangway, working place and stairway shall be suitably fenced.
- (k) Every opening in the floor of a building or in a working platform shall, except for the time and to the extent required to allow the access of person or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or material.
- (l) When persons are employed on a roof where there is danger of falling from a height exceeding (4.25 mt) 14 ‘ (to be specified) meters suitable precaution shall be taken to prevent the fall of persons or material.
- (m) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffold or other working place.
- (n) Safe means of access shall be provided to all working platforms and other working places.

CLAUSE 20 B :

The contractor shall comply with the following regulations as regards the hoisting appliances to be used by him

- (a) Hoisting machines and tackle including their attachments, anchorages and supports shall -
 - (i) be of good mechanical construction, sound material and adequate strength and free from patent defect, and
 - (ii) be kept in good repair and in working order
- (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
- (c) Hoisting machines and tackles shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by Engineer-in-charge.
- (d) Every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- (e) Every crane driver or hoisting - appliance operator shall be properly qualified.
- (f) No person who is below age of 15 years shall be in control of any hoisting machine, including any scaffolds, nor shall give signals to the operator.
- (g) In the case of every hoisting machine and of every chain, ring hook, shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension the safe working load shall be ascertained by adequate means.
- (h) Every hoisting machine and all gears referred to in preceding regulation shall be plainly marked with the safe working load.
- (i) In the case of hoisting machine having a variable safe working load, each safe working load and conditions under which it is applicable shall be clearly indicated.
- (j) No part of any hoisting machine or gear referred to in regulation ‘g’ above shall be loaded beyond the safe working load except for the purpose of testing.
- (k) Motors, gears, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with sufficient safeguards.
- (l) Hoisting appliances shall be provided with such means as will reduce to a minimum the risk of the accidental descent of the load.
- (m) Adequate precautions shall be taken to reduce to minimum the risk of any part of a suspended load becoming accidentally displaced.

CLAUSE 21 : Measures for Prevention of Fire :

The contractor shall not set fire to any standing jungle, tree bush wood or grass without a written permit from the Engineer-in-charge. When such permit is given, and also in all cases when destroying cut or dug up tree, bush wood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or other-wise damaging surrounding property. When such permit is given and also in all cases when destroying cut or dug up tress, bush wood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or other-wise damaging surrounding property.

CLAUSE 22 : Liability of contractors for any damages done in or outside work area :

Compensation for all damage done intentionally or unintentionally by Contractor's labourers whether in or beyond limits of Botad Nagarpalika property including any damage caused by the spreading of fire mentioned in the clause 22, shall be estimated by the Engineer-in-charge, or such other Officer as he may appoint and the estimates of the Engineer-in-charge, subject to the decision of the Superintending Engineer, on appeal, shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which the same will be recovered from the Contractor as damages in the manner prescribed in clause 1 or deducted by the Engineer-in-charge from any sums that may be due or become due from Botad Nagarpalika to the contractor under this contract or otherwise.

The Contractor shall bear the expenses of defending any action or other legal proceeding that may be brought by any person for injury sustained by him owing to neglect of precautions to prevent the spread of the fire and he shall also pay the damages and cost that may be awarded by the court in consequence.

CLAUSE 23:

Work not to be sublet. Contract may be rescinded and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor becomes insolvent :

The contract shall not be assigned or sublet without the written approval of the Engineer-in-charge. And if the contractor shall assign or sublet his contract or attempt to do so or become insolvent or commence any proceeding to get himself be adjudicated an insolvent or make any compromisation with his creditors, or attempt to do so, the Engineer-in-charge may, by notice in writing rescind the contract, Also if any bribe, gratuity, gift loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the contractor, or any of his servants or agents to any public officer or person in the employ of Botad Nagarpalika in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in contract, the Engineer-in-charge may thereupon by notice in writing rescind the contract. In the event of contract being rescinded, the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Botad Nagarpalika and the same consequence shall ensure as if the contract had been rescinded under clause 3 thereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under contract .

CLAUSE 24:

Sums payable by way of compensation to be considered as reasonable compensation without reference to actual loss :

All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of Botad Nagarpalika without reference to the actual loss or damage sustained and whether any damage has or had not been sustained.

CLAUSE 25 : Change in the constitution of firm to be notified :

In the case of a tender by partners, any change in the constitution of a firm shall be forthwith notified by the Contractor to Engineer-in-charge for his information.

CLAUSE 26 : (1) Disputes to be referred to Tribunal :

The disputes relating to this contract, so far as they relate to any of the following matters, Whether such disputes arise during the progress of the work or after the completion or

abandonment thereof, shall be referred to the Arbitration Tribunal, Gujarat State.

(i) The rates of payment under clause 5 for any tools, materials and stores, in or upon the works of the site thereof or belonging to the contractor or procured by him an intended to be used for execution of the work or any part thereof possession of which may have been taken by the Engineer-in-charge under the said clause-5

(ii) The Reduction in rates made by the Engineer-in-Charge under clause 9 from the items of works not accepted as completed fully in accordance with the sanctioned specifications.

(iii) The rate of payment for any class of work which is included in the additional or altered work carried out by the contractor in accordance with the instructions of the Engineer-in-Charge under clause 14 and the rates for which is to be determined under the said clause 14.

(iv) The rates of payment for materials already purchased or agreed to be purchased by the contractor before receipt of notice given by the Engineer-in-Charge under clause 15, and/or the amount of compensation payable to the contractor under the said clause for loss in respect of such materials.

(v) The amount of compensation which the contractor shall be liable to pay under clause 17 in the event of his failure to rectify, remove or reconstruct the work within the period specified in the written intimation or the amount of expenses incurred by the Engineer-in-Charge under the said clause 17 in rectifying, removing or re-executing the work or in removing and replacing the materials or articles complained of .

(vi) The reduction of rates as may be fixed by the Engineer-in-Charge under clause 17 for the inferior work or materials as accepted or made use of.

(vii) The amount of compensation payable by the contractor for damages as estimated and assessed under clause 23.

(viii) The amount payable to the contractor for the work carried out under clause 33 in accordance with the instructions and the requirements of the Engineer-in-Charge in a case where there are no specifications .

(2) The provision of Section-21 of the GPWD dispute Arbi. Tribunal Act -92 & order issued by the Govt. in connection with this Act will now apply for Arbitration (As per Botad Nagarpalika in N. & W.R.D. letter No. SUT/1090/2679/K2 dt. 9/2/94 .

(3) The provision of Arbitration Act ,shall in so far as they are inconsistent with the provision of this act cease of to apply to any dispute arising from a works contract and all arbitration proceedings in relation to such dispute before an arbitrator, court of authority shall stand transferred to the Tribunal.

(4) The awards declared by the arbitrator should be speaking award, giving reasons and calculations for every item of claims. The decision will have to be implemented by all the departments of the State Botad Nagarpalika and Public Sector Enterprises of Gujarat. (Resolution F.D.No. PB/1088/735/KT/ Sachivalaya/ Gandhinagar 5th October 1988.)

(5) In case of dispute leading to the contractor or Botad Nagarpalika of Gujarat approaching to Court of Law, it shall be within the jurisdiction where the site of work is situated.

(6) The reference to arbitration proceeding under this clause shall not

(i) affect the right of the Engineer-in-charge under clause 5 to take possession of all or any tools plants materials and stores in or upon the works of site thereof belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof.

(ii) Preclude the Engineer-in-charge from utilizing the materials purchased by the contractor in any work or from removing such materials to other places, during the period the work is stopped or suspended in pursuance of notice given to the contractor under clause 15

(iii) Entitle the contractor to stop the progress of the work or the carrying out the additional or altered work in accordance with the provisions of clause 14 or as the case may be or clause 33.

CLAUSE 27 : Lump sum in estimates :

When the estimate on which a tender is made includes lump sum in respect of part of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not in the opinion of the Engineer-in-

charge capable of measurement the Engineer-in-charge may , as his discretion, pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him, under the provisions of this clause.

CLAUSE 28 : Action where no specifications :

In the case of work for which there is no such specification, such work shall be carried out in accordance with the Divisional Specification and in the event of there being no Divisional Specifications, then, in such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge.

CLAUSE 29 : Definition of work :

The expression “work” or “works” where used in these conditions shall, unless, there be something in the subject or context repugnant to such construction to mean the work, or the works, contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original, altered, substituted or additional.

CLAUSE 30 : Contractor’s percentage whether applied to net or gross amount if the bill :

Percentage referred to in the tender shall be deducted from / added to the gross amount of the bill before deducting the value of any stock issued. (This clause shall be applicable only for B-1 tender)

CLAUSE 31 : Non refund of quarry fees & Royalties :

The contractor shall pay the royalty to the competent authority / local body as per rules. The contractor shall furnish quarterly the statement showing quantity of quarried materials, from whom purchased (with full address of the seller) and copies of bills for purchase to the District Officer of the Mining and Geology Department of authority competent to levy royalty in the area of work. Contractor shall also furnish such additional information as regards royalty payment to the Royalty authority. The royalty charges paid shall be borne by the Contractor and shall not be reimbursed by the Chief Officer(Authority :- R & B D Circular No. TNC - 2286 - UO - 39 (19) - C dated 23-10-1989.)

CLAUSE 32: Compensation under the workmen’s compensation Act :

The contractor shall be responsible for and shall pay compensation to his workman payable under the Workman’s Compensation Act. 1923 (VIII of 1923) hereinafter called the said Act) for injuries caused to the workman. If such compensation is paid by Botad Nagarpalika as principal under sub-section 12(1) of the said Act on behalf of the Contractor, it shall be recoverable by Botad Nagarpalika from the contractor under sub section 12(2) of the said section. Such compensation shall be recovered in the manner laid down in clause 1 above.

CLAUSE 32-A:

The Contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Botad Nagarpalika, the same shall be recoverable from the contractor forthwith and be deducted, without prejudice to any other remedy of Botad Nagarpalika from amount due or that may become due to the Contractor.

Clause 32-B:

The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the person employed on the site and shall maintain the same in suitable condition for immediate use at any time and shall comply with the following regulations in connection therewith.

(a) The workers shall be required to use the equipment so provide by the Contractor and Contractor shall take adequate steps to ensure proper use of the equipment by those concerned.

(b) When work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept for use and all necessary steps shall be taken for the prompt rescue of any person, in danger.

(c) Adequate provision shall be made for prompt first aid treatment of all injuries to be sustained during the course of the work.

Clause 33 :

The quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being less than those entered in the tender. In the case of increase in the quantities by more than 30% the new rate will be paid to the contractor for the quantities in excess of 30%. The rates for the increased quantities as aforesaid will be fixed in the manner specified in clause - 14

Clause 34 :

Employment of famine or other labour: The contractor shall employ any famine, convict or other labour of particular kind or class, if ordered in writing to do so by the Engineer-in-charge.

Clause 35 :

No compensation shall be allowed for any delay caused in the starting of the work on account of delay in making available the full site of land at a time.

Clause 36 :

No claim for compensation shall be allowed for any delay in execution of the work on account of water standing in borrow pits or compartment. The rates are inclusive of hard or cracked soil, excavation in mud, sub soil water or water standing in borrow-pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

Clause 37 : Entering upon or commencing any portion or work :

The Contractor shall not enter upon or commence any portion or work except with the written authority and instruction of the Engineer-in-charge or of his subordinate in charge of the work. Failing such authority, the Contractor shall have no claim to ask measurement of or payment for work.

Clause 38 : Minimum age of person employed :

(I) No Contractor shall employ any person who is under the age of 15 years. Clause 39 (A) : The employment of donkeys and / or other animals and the payment of fair wages : For Asphalt work(s) as far as possible, only the adult persons should be employed by the contractor. If the adult person are not available, then the children below the age of 15 (Fifteen years) should not be employed under any circumstance.

(II) No contractor shall employ donkeys or other animals with branching of string or thin rope. The branching must be at least three inches wide and should be of tape (Nawar).

(III) No animal suffering from sores, lameness or emaciation or which is immature shall be employed on the work.

(IV) The Engineer-in-charge or his agent is authorized to remove from the work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by Botad Nagarpalika for any delay caused in the completion work by such removal.

(V) The Contractor shall pay fair and reasonable wages to the workman employed by him in the contract undertaken by him. In the event of any dispute arising between the Contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Engineer-in-charge who shall decide the same. The decision of the Engineer-in-charge shall be conclusive and binding on the Contractor, but such decision shall not in any way affect the conditions in the contract regarding the payment to be made by Botad Nagarpalika at sanctioned tendered rates.

(VI) The contractor shall provide drinking water facilities to the workers/ labourers employed on Botad Nagarpalika works. Amenities relating to sanitation shall also be provided to the workers/labourers employed on works (in urban areas) . If the contractor fails to comply with these provisions, the Engineer-in-charge shall give notice in writing and if the contractor does not provide this facility to the workers/

labourers within a period of ten days from the date of the notice in writing, the Engineer-in-charge shall thereupon make the arrangement for drinking water at the cost of the contractor.

- (VII) The Contractor shall provide the amenity of proper shed and shelter to the workers/ labourers and their children on Botad Nagarpalika works as soon as the work starts. If the contractor fails to provide shed and shelter, the Engineer-in-charge shall provide the same at the cost of contractor.

Clause 40 : Method of payment :

Payment to contractor shall be made by cheque drawn on any treasury within the division convenient to them, provided the amount exceeds Rs. 10 Amount not exceeding Rs. 10 will be paid in cash.

Clause 40 A : Any sum of money due and payable to the Contractor (including the security deposit returnable to the contractor) executing any Botad Nagarpalika work or work of any District Panchayat wholly financed as grant-in-aid under this contract shall be appropriated by any District Panchayat / Botad Nagarpalika and shall be set off against any claim of the Botad Nagarpalika/District Panchayat of Gujarat state by the District Panchayat of Gujarat State/Botad Nagarpalika for the payment of a sum of money arising out or under any other contract made by the contractor with the Botad Nagarpalika/District Panchayat of Gujarat State for the work wholly the contractor against any claim of the Botad Nagarpalika / District Panchayat of Gujarat state is available, such a recovery shall be made from the contractor as arrears of land revenue.

Clause 41 : Employment of scarcity labour :

If Botad Nagarpalika declares a state of scarcity or famine to exist in any village situated within 16 kilometers of the work, the Contractor shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Engineer-in-charge or by any persons to whom, the Engineer-in-charge may have delegated this duty in writing to be in need of relief and shall be bound to pay to such persons, wages not below the minimum which Botad Nagarpalika may have fixed in this behalf. Any disputes which may arise in connection with the implementation this clause shall be decided by the Engineer-in-charge whose decision shall be final and binding on the contractor.

Clause 42 : The rates to be quoted by the Contractor must be inclusive of sales tax . No extra payment on this account will be made to the contractor.

Clause 43 : The Contractor should, as far as possible , obtain his requirement of labourers skilled and unskilled , from the nearest Employment Exchange so as to utilize the local employment potential. If there are no local Employment Exchange or such Exchanges are not able to provide the required labour locally, suitable labourers should be utilized to the maximum extent possible.

Clause 44 : Fair Wages :

If a Contractor fails to pay within '7' (Seven) days to the labourer(s) /worker(s) the minimum wages prescribed by the Botad Nagarpalika under the Minimum Wages Act. 1948 as in force from time to time, the Engineer-in-charge shall be at liberty to deduct the amount payable to the labourer/ workers from his (Contractors) bills or deposit(s) payable by the Contractor after making due inquiries and establishing the claim(s) of the labourer(s) /Workers(s).

The contractor shall not be entitled to any payment of compensation on account of any loss that the Contractor may have to incur on account of the action as aforesaid. Before the action as aforesaid, is enforced, a notice in writing to the Contractor shall be issued by the Engineer-in-charge to pay the wages as per Minimum Wages Act in force at the relevant time. If Contractor does not act as aforesaid within seven days, then the action contemplated as above shall be taken against him.

Clause 45 : List of Machinery :

The contractors shall also give a list of machineries in his possession and which they propose

to use on the work.

Clause 46 : (i) In case , the roller deployed by Department for the use on contract work is kept idle by the contractor for want of adequate labour and materials, the contractor will have to pay rental charges as per prevailing rules even though the items of rolling and watering are to be carried out by the department.

(ii) If the contractor does not plan his Programme so as to suit the requirement of the Department, the proportionate rental charge on roller shall be recovered from the contractor.

Clause 47 : Local labour on normal rates :

The contractor shall have to engage local labour and person seeking employment where available on normal rate.

Clause 48 : Rent will be recovered from the contractor for the land given to them for stacking materials as well as for construction of temporary hutments etc.

Land measuring Charges

1. One hectare or less	Rs.5 Per month
2. More than 1 hectare & up to 2 hectares	Rs.10 per month
3. More than 2 hectare & up to 3 hectares	Rs.15 per month
4. More than 3 hectare & up to 4 hectares	Rs.20 per month

Clause 49 : The contractor shall employ only such labour who shall produce a valid certificate of having been vaccinated against small-pox within a period of last three years.

Clause 50 :

1 Huts : The contractor shall build sufficient number of huts on a suitable plot of land for the use of the laborers according to the following specifications.

- (1) Huts of bamboos and grass may be constructed.
- (2) A good site shall be selected. High ground removed from jungle but well provided with tress shall be chosen wherever it is available. The neighborhood of rank jungle, grass or weeds should particularly be avoided. Camps should not be established close to large cuttings of earth work.
- (3) The lines of huts shall have open spaces of at least 10 m. between rows. When a good natural site cannot be procured, particular attention should be given to the drainage.
- (4) There should be no over-crowding. Floor spaces at the rate of 2.8 Sq.m. per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.
- (5) The contractor must find out his own land. If he wants Botad Nagarpalika land, he should apply for it and pay assessment for it.
2. **Drinking Water :** The contractor shall as far as possible, provide an adequate supply of chlorinated pure potable drinking water for the use of labourers. This provision shall be at the rate of not less than 4.5 liters per head . No provision need-be made where there is a suitable nala, river or well within 0.4 km of the camp. However arrangement should as far as possible, be made to chlorinate water by chlorinated tables before it is allowed for drinking purpose.
3. The contractor shall construct semi permanent latrines for the use of Labourers on the following scale, namely (a) Where female are employed , there shall be at least one latrine for every 25 females . (b) Where males are employed there shall be at least one latrine for every 25 males provided that where the number of males or female exceed 100 , it shall be sufficient if there is one latrine for every 25 males or females , as the case may be up to the first 100 and one for every 50 thereafter.
4. **Privacy in latrines :** Every latrine shall be under cover and so partitioned off as to secure privacy , and shall have a proper door and fastenings.
5. **Notice to be displayed outside latrines and urinals :** (1) Where workers of both sexes are employed there shall be displayed outside each block of latrine and urinal a notice in the language understood by the majority f the workers For Men Only or For Women Only : as the case may be.
(2) The notice shall also bear the figures of a man or of a women, as the case may be .
6. **Urinals :** There shall be at least one urinal for male/female workers up to 50 employed

at a time . Provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 males or females or part thereof.

7. **Latrines and Urinals to be accessible:** (1) The latrines and urinals shall be conveniently situated and accessible to workers at all times at the establishment . (2) (i)) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times (ii) Latrines and urinals other than those connected with a flush sewage system shall comply with the requirements of the Public Health Authorities.
8. **Water for latrines and urinals** Water shall be provided by means of pipes or tanks or otherwise, so also be conveniently accessible in or near the latrines and urinals.
9. **Bathing and washing places :** (1) The contractor shall construct sufficient number of bathing places. Every unit of 20 persons being provided with a separate bathing place. (2) Washing places should also be provided for the purposes of washing clothes. Every unit of 30 persons shall have at least one washing place. (3) Such bathing and washing places should be suitably screened and separate places provided for male and female workers. (4) Such facilities shall be conveniently accessible and shall be kept in clean and hygienic condition.
10. **Drainage :** The contractor shall make sufficient arrangement for draining away the sewerage water as well as water from the bathing and washing places and shall dispose off this waste water in such a way as not to cause nuisance. The contractor should obtain a permission from the Gujarat Water Pollution Control Board, Gandhinagar if Water is so be drained in river or near the well . The contractor would put malaria oil once in a week in stagnant water round about the residence.
11. **Medical facilities :** The contractor shall engage a medical officer with a traveling dispensary for a camp having 500 or more persons if there is no Botad Nagarpalika or other private dispensary situated within 6 km. from the camp.
12. **Conservancy and cleanliness:** The contractor shall provide the necessary staff for effecting the satisfactory conservancy and cleanliness of the camp to the satisfaction of the Engineer-in-charge . Atleast one sweeper per 200 persons should be engaged. Conservancy staff should dump refuse in compost pit, away from the labour camp.
13. **Health Provisions :** The District Health Officer of the District or the Deputy Director of Health Service shall be consulted before opening a labour camp and his instructions on matters, such as the water supply, sanitary convenience, the camp-site, accommodation and food supply shall be followed by the contractor.
14. **Precautions against epidemic :** (a) The authorities in charge of the colonies should get the labourers inoculated against cholera and plague and vaccinated against smallpox at the time of recruitment , if they are not inoculated or vaccinated within 6 months or 3 years respectively prior to the date of recruitment. (b) When, in any labour camp there is an epidemic disease or is threatened with such an outbreak, the authorities in charge of the labour camps should ensure that all the inmates of the labour colonies are inoculated or vaccinated as the case may be , depending on the diseases, within 72 hours after the outbreak. (c) The authorities in charge of the labour colony should arrange to communicate by wire regarding the outbreak of the epidemic diseases on the very day of the outbreak , to the Mamlatdar of the Taluka, the District Health officer or to the Deputy Director of Public Health in charge of that area and the Director of Public Health. Thereafter they should continue to send daily reports to the above officers in the prescribed form regarding the progress of the epidemic disease. (d) When the authorities in charge of the labour colony suspect or have reason to believe that any inmate of the labour colonies is suffering from the infectious or contagious disease , they shall forthwith arrange for the segregation of such persons to isolated huts to be specifically provided for the purpose and also for their treatment (e) As regional malaria epidemic outbreaks are likely to occur in such project areas, the authorities in charge of the labour colonies should report promptly the occurrence of unusual incidence of cases of malaria and also inform the District Health Officer of the District, Deputy Director of Public Health (Malaria) and the Director of Public Health and also arrange to institute all necessary anti malarial measures as may be advised by the officials of the Public Health Department. (f) The authorities in charge of the colonies

should also arrange to carry out any other measures that may be recommended by the officials of the Public Health Department necessary to prevent or control the spread of disease.

- 15. Rest rooms:** (1) In every place where in contract labour is required to halt at night in connection with the contract works and in which employment of contract labour is likely to continue for three month or more, the contractors shall provide and maintain rest rooms or other suitable alternative accommodation within fifteen days of the employment of contract labour.
- (2) If the amenity referred to in sub rule is not provided by the contractor within the period prescribed, the employer shall provide the same within a period of fifteen days of the expiry of the period laid down in the sub-rule (1).
- (3) Separate rooms shall be provided for women employees.
- (4) Effective and suitable provision shall be made in every rooms for securing and maintaining adequate ventilation for the circulation of fresh air and there shall also be provided and maintained sufficient and suitable natural or artificial lighting .
- (5) The rest room or other suitable alternative accommodation shall be of such dimensions as to provide at least a floor area of 1. Sq. mt. For each person making use of rest rooms.
- (6) The rest room or other suitable alternative accommodation shall be so constructed as to afford adequate protection against heat, wind, rain, and shall have smooth, hard and impervious surface.
- (7) The rest rooms or other suitable alternative accommodation shall be at a convenient distance from the establishment and shall have adequate supply of whole some drinking water.

16. Canteen Facilities : (1) In every establishment of contract work and wherein work regarding the employment of contract labour is likely to continue for six months and wherein contact labour numbering one hundred or more are ordinarily employed, the adequate canteen facilities shall be provided by the contractor for the use of such contract labour within sixty days of the commencement of the employment of contract labour.

- (2) If the contractor fails to provide the canteen facilities within the time limit laid down the same shall be provided by the principal employer within sixty days of the time allowed to the contractor.
- (3) The canteen shall be maintained by the contractor or principal employees as the case may be in an efficient manner.

17. Accommodation in canteen: (1) The canteen shall consist of at least dining hall, kitchen, store room, pantry, and washing places separately for worker and for utensils.

2 (I) The canteen shall be sufficiently lighted at all times where any person has access to it.
(ii) The floor shall be made of smooth and impervious materials and inside walls shall be lime-washed or colour-washed at least once in each year, provided that the inside walls of the kitchen shall be lime-washed every four months.

- 3** (i) The premises of the canteen shall be maintained in clean and sanitary condition.
(ii) Waste water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as cause nuisance.
(iii) Suitable arrangements shall be made for the collection and disposal of garbage.

18. Accommodation in dining hall : (1) The dining hall shall accommodate at a time, at least 30% of the contract labour working at a time.

- (2) The floor area of the dining hall excluding the area occupied per dinner to be accommodated shall as prescribed in sub rule (i)
- (3) (I) A portion of the dining hall and service counter shall be partitioned and reserved for women workers, in proportion to their numbers. (ii) Washing places for women shall be separate and screened to secure privacy.
- (4) Sufficient table, stools, chairs or benches shall be available for the number of diners to be accommodated as prescribed in sub rule 1.

19. Equipment in canteen :

- (i) There shall be provided and maintained sufficient utensils, crockery, cutlery, furniture and any other equipment necessary for the efficient running of the canteen.
(ii) The furniture utensils and other equipment shall be maintained in a clean and hygienic condition.
- (2)(i) Suitable clean clothes for the employees serving in the canteen shall also be provided

and maintained.

- (ii) A service counter, if provided, shall have a top of smooth and impervious materials.
- (iii) Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.

20. Food stuff to be served : The food stuff and other items to be served in the canteen shall be in conformity with the normal food habits of the contract labour.

21. Prices to be displayed: The charges for food stuffs, beverages and any other item served in the canteen shall be based on “no profit, no loss” and shall be conspicuously displayed in the canteen.

22. Canteen to be run on “No profit no loss” basis: In deriving the prices of food stuffs and other articles served in the canteen, the following items shall not be taken into consideration as expenditure, namely.

- (a) the rent for the land and building.
- (b) The depreciation and maintenance charges for the building and equipment provided for in the canteen.
- (c) The cost of purchase, repairs and replacement of equipment including furniture, crockery, cutlery and utensils.
- (d) The water charges and other charges incurred for lighting and ventilation.
- (e) The interest on the amount spent on the provisions and maintenance of furniture and equipment provided for in the canteen.

The local officers should check up whether, facilities as offered and which are admissible under the existing rules and orders are made available to the workers and enforce upon the contractors the necessity of adhering to the instructions for promotion of welfare of the workers according to the terms of the contract.

CLAUSE 51 : Contractor shall have to arrange for the supply of gumboots. Hand gloves, mask etc. invariably to the labourers/workers engaged by the contractor on asphalt work.

CLAUSE 52 : The Contractor shall not show any distinction between Harijan and other class of labourers / workers employed to carry out the Botad Nagarpalika work.

CLAUSE 53 : FENCING AND LIGHTING

- (a) The contractor shall, unless otherwise specified, be responsible for the proper fencing, lighting guarding and taking of the necessary safety measures for all works comprised in the contract and for the proper provision of temporary road, way, foot-way , guards, fences, caution notices, etc. as far as the same may be rendered necessary by reasons of the work for the accommodation of workmen, foot passengers or other traffic and of owners and occupiers of adjacent property and the public and shall remain responsible for any accident that may occur on account of his failure to take proper & timely precautions.
- (b) All the arrangements made for fencing and lighting shall be maintained by the contractor through the currency of the contract till the physical taking over of the work by department.

CLAUSE 54 : LIABILITY OF ACCIDENTS TO PERSONS :

Responsibilities and liabilities of the contractor under Workmen’s Compensation Act are given in clause No.37. In addition following shall also apply:

- (a) On the occurrence of an accident, which result in death of workmen employed by the contractor or which is so serious as likely to result in death of any such workmen the contractor, shall within 24 hours of happening of such accident(s) intimate, in writing to Engineer-in-Charge the fact of such accidents. The contractor shall indemnify Botad Nagarpalika against all loss or damage sustained by the Botad Nagarpalika resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or fines, if any, payable by the Botad Nagarpalika as a to the provisions of the said act in regard to such accident(s).
- (b) In the case of an accident, in respect of which compensation may become payable under Workmen’s Compensation Act. whether by the contractor or by the Botad Nagarpalika as principal Employer, it shall be lawful for the Engineer-in-charge to retain out of money due and payable to the Contractor, such sum or sum of money as

may, in the opinion of the Engineer-in-charge, be sufficient to meet such a liability, The opinion of the Engineer-in-charge shall be final regard to all matters arising under this clause.

CLAUSE 55 : ACCESS TO SITE AND WORK ON SITE :

The Engineer may , if he considers fit from time to time, enter upon any land(s) which may be in possession of the contractor under this contract for the purpose of executing any work not included in this contract by agents or by other contractors, at this opinion and the contractor shall, in accordance with the requirements of the Engineer-in -charge , afford all reasonable facilities for execution of the work including occupation of lands by structure or otherwise for any other contractor employed by the Botad Nagarpalika and his workmen for the workmen of the Botad Nagarpalika who may be employed in the execution on or near the site of the work not included in the contract or of any contract in connection with or ancillary to the work and in default, the contractor shall be liable to the Botad Nagarpalika for any delay or expenses incurred by reason of such default. Provided always that if damage arising. Make a statement of the same to the Engineer-in-charge who shall from time to time, assess the value in his judgment of such damage and the Botad Nagarpalika shall from time to time pay to the contractor the amounts (if any) accepted as justified by the Engineer-in-charge :

CLAUSE 56 : REPORTS REGARDING LABOUR :

The Contractor shall submit the following reports to the Engineer-in-charge :

- (a) (i) A daily report in the suitable form of the strength of labour, both skilled and unskilled employed by him on the work(s). The contractor shall increase or decrease the strength both skilled or un skilled. if directed by the Engineer-in-charge. The submission of such reports shall not, however, relieve the contractor of his responsibilities and duties regarding progress or any other obligation under the contract
- (ii) A classified weekly return in the suitable form of the number of person employed on the works during the preceding week.
- (iii) A weekly medical report in the suitable form showing the health of the contractor's camp. The number of persons ill or incapacitated and the nature of their illness.
- (iv) A report of any accident, which may have occurred, to be sent within 24 hours of the occurrence.
- (v) Such other report as may be prescribed.

CLAUSE 57 : Treasure Trove

In the event of discovery by the contractor or his employees, during the progress of work of any gold, silver, oil or other minerals of any description and precious stones , treasures, coins, antiquities, relic, fossils or other articles or value of interest whether geological, archaeological or any other such treasure & other things shall be deemed to be the absolute property of the Botad Nagarpalika and the contractor shall duly preserve the same to the satisfaction of the Engineer-in-charge, from time to time, and relieve the same to such persons as the Engineer-in-charge may appoint.

The contract shall take all reasonable precautions to prevent his workmen other person from removing or damaging any such articles or things, immediately after the discovery thereof and before removal acquaint the Engineer-in-charge with discovery and carry out his orders for the disposal of the same.

CLAUSE 58 : Indemnity :

The contractor shall indemnify the Botad Nagarpalika against all actions, suits, claims & demands through or made against the Department in respect of work of this contractor against any loss damage to Department in consequence of any action or suit being brought against the contractor for anything done or omitted to be done in execution of the work of this contract.

CLAUSE 59 : Insurance of Laborers :

The contractor shall be responsible to arrange for insurance of all labourers, skilled and unskilled workers, supervisors etc. employed by him as per labour regulation of the State.

CLAUSE 60: Setting Out :

The contractor shall be responsible for the true and proper setting out of the works and the correctness of positions, levels, dimensions and alignments of all parts of the work and for the provisions of all necessary instruments, appliance and labour in connection therewith. if , at any time during the progress of the work, any errors, appear or arise in the position , levels, dimensions or alignments of any part of the work, the contractor, on being required to rectify such errors by the Engineer-in-charge shall at his own expense do so to the satisfaction of the Engineer-in-charge . if however, such error is based on incorrect data supplied in writing by the Engineer-in-charge, the expenses of rectifying the same shall be borne by the Department. The checking of and setting out of any line or level by the Engineer-in-charge or his representative shall not in any way, relieve the contractor of his responsibilities for the correctness of the error. The contractor shall carefully protect and observe all bench-mark, site-nails, page and other things used in setting out of the work(s)/

CLAUSE 61 : Cement Register :

A register in the prescribed form showing day-to-day receipt, consumption and balance of cement on site of work will be maintained by the Department, which shall invariably be signed daily by the contractor or his authorised representative in token of its correctness.

CLAUSE 62 : Materials and Works Test Register :

A register in the prescribed form showing day-to-day receipt, consumption and balance of cement on site of work by the Department and every entry thereof shall invariably be signed by the Contractor or his authorized representative in taken of its correctness.

CLAUSE 63 : Progress Schedule :

(a) The contractor shall furnish within one month (unless extended by the Engineer-in-charge) of the order to start the work, the progress schedule in quadruplicate indicating the date or starting. The monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him, also indicating dates of, procurement and setting up the materials, plants and machinery. The schedule should include a statement of proposed general and detailed arrangements for carrying out works, and of item, order and manner in such it is proposed general and detailed arrangements for caring out works, and of item, order and manner in which it is proposed that these shall be executed. The practice to the achievement towards completion of the work in the time limit and of the particular items on the dates specified in the contract and shall have the approval of the Engineer-in-charge. Further the dates for the progress, as in this schedule shall be adhered to.

- (a) in case it is sound necessary, at any stage to alter the schedule. the contractor shall submit in good, time a revised schedule incorporating necessary modification proposed and get the same approved from the Engineer-in-charge. No revised schedule shall be operative without such acceptance in writing. The Engineer-in-charge is further empowered to ask for more detailed schedule or schedule. any by week, for any item or items and the contractor shall supply the same as and when asked for.
- (b) The Engineer-in-charge shall have, at all times, the right, without in any way vitiating this contract forming grounds for any claim, to after the order of the work of any part thereof and the contractor shall after receiving such direction, proceed in the order directed. The contractor shall also revise the progress. Schedules accordingly and submit four copies of the revised schedule to the Engineer-in-charge within seven days of the said Engineer's direction to alter the order of works.
- (c) The contractor shall furnish sufficient plant, equipment and labour and shall work such hours and shifts as may be necessary to maintain the progress of the work as per approved progress-schedule, the working and shift shall comply with all the Botad Nagarpalika regulations in force and shall be such, as may be approved by the Engineer-in-charge and the same not be varied without the prior approval of Engineer-in-charge.
- (d) The contractor shall from time to time. as may be required by the Engineer-in-charge. furnish the Engineer-in-charge with a statement in writing of the arrangements he proposes to adopt for the execution of this contract and the Engineer-in-charge may, if he considers necessary at any time advise alternation in the same. Which the contractor shall adopt on notice thereof.

- (e) The progress-schedule(s) shall be in the form of progress chart, forms, statements and/or reports as may be approved by the Engineer-in-charge.
The contractor shall submit four copies showing the progress of the work in the form of a chart etc. at periodical intervals as may be specified by Engineer-in-charge.
- (f) The approval of the progress schedules by the Engineer-in-charge shall not relieve the contractor of schedule required by the Engineer-in-charge and shall not entitle the contractor to any extra payment.

CLAUSE 64 :

Before starting the work, the contractor will have to obtain the license from the District Assistant Labour Commissioner under the Contract Labour (Regulation and Abolition) Act. 1970 and contract Labour (regulation and Abolition) Gujarat Rules 1972 after paying necessary fees and deposit on the basis of the number of labourers to be employed on the work and will have to supply two true copies of the said license to the Deputy Chief Officer before the work is started.

Laboratory : The contractor will construct pucca structure of minimum 25 square meter already connected with water and electric supply to house site testing Laboratory.

Instruments : The contractor will provide and install the instruments as per following. I.S. Standard to carry out the test prescribed therein.

- | | |
|--|--|
| 1. Penetration test as per I.S. 1203 | 2. Softening point test as per I.S. 1204 |
| 3. Ductility test as per I.S. 1208 | 4. Viscosity test as per I.S.1206 |
| 1. Specific gravity test as per I.S.1202 | |

The instruments provided should be as per I.S. Standard, so certified and be regularly and periodically calibrated. Frequency of tests will be as indicated in specifications and as referred in R. & B. D. G.R. No. SSR-1099-IB/91(9)-c dated 26-7-1999

Annexure : The information in the following annexure specimens should be furnished on separate letter pad if necessary.

ANNEXURE - 1

(Referred to Condition No.-2 General Rules and Direction for the guidance of Contractors.)

To,
The Chief Officer, Botad Nagarpalika, Botad,

Details regarding my / our partners our Company (in the case of limited Company) Names, address(es), telephone number(s) income tax etc. are as under :

Sr. No	Name(s) of Person /Partner Director of the company	Full address of the place of business (with pin code)	Telephone No. (s) (office)	Residential address(es) (Resi)	Telephone No. (s)	Full address of income tax office ward where income tax return is filed
1	2	3	4	5	6	7

I/We hereby agree to intimate you about change if any, in the above-mentioned address(es) and telephone No. (s) within Fifteen days of its occurrence till my/our deposit, for the said work paid by me/us is not returned to me/us.

Date :

Signature of Tenderer

ANNEXURE - 3**LIST OF WORKS ALREADY COMPLETED BY THE TENDERER**

Sr. No	Name of work	Place	Cost on completion	Time taken in months To complete the work	Remarks
1	2(a)	2(b)	3	4	5

Note : Necessary certificate from office concerned shall be attached with the tender

ANNEXURE - 5**DECLARATION REGARDING WORKS ON HAND WITH TENDERER**

Sr. No.	Name of work	Place	Estimated Cost	Date of issue of work order	Stipulated period of completion	Amount of work done on date of filling tender	Brief details of delay if any	Remark
1	2(a)	2(b)	3	4	5	6	7	8

Note 1 : Amount of work in column 6 should be given up to the month previous to the month in which tenders are invited.

Note 2 : Necessary certificate from the officer concerned shall be attached with the tender.

ITEM WISE TECHNICAL SPECIFICATIONS**Supply & Installation of Pyrolysis Plant (Plastic to Oil plant) machinery for Solid Waste Management under SBM:1 Grant for Botad Nagarpalika**

Sr. No	Description	Material
1	Pyrolysis Reactor with 50mm Cera-wool insulation.	SS 304 plates
2	Receiver Tank	M.S Plate
3	Oil Water Separator (Safety Equipment)	M.S Plate with BS 10 Table D Flanges
4	Condensers (Horizontal or vertical as per design)	M.S Plates and seamless pipes
5	Gas Bubbler (Safety Equipment)	M.S Plate with BS 10 Table D
6	Storage Tank (Heavy Oil)	M.S Plate with BS 10 Table D
7	Storage Tank (Medium Oil)	M.S Plate with BS 10 Table D
8	Gas Scrubber tank with high pressure non clogging nozzles, gear pump and packing (Dedusting and Gas Cleaning)	M.S Plate with BS 10 Table D
9	Chimney 40ft long and 6" diameter	ERW C Class Heavy dutypipe with bottom cone.
10	Frame structures for the assembly	Fabricated
11	Flaring System for burning exhaust gases	Proprietary including
12	Control Panel	Manual
13	Foundation frame for furnace	Fabricated
14	Vacuum Pump System for combustible gas removal. Safety Equipment.	included
15	Burners with separate pumping and filtration unit	Included
13	Catalyst	2000 Kgs
14	Conical bottom water Separation tank with gear pump for transfer from batch tank	included
15	Installation of civil, electrical & plumbing work inclusive of all work for commissioning of project, Operation & maintenance of project for 1 year.	Included

SPECIFICATION OF
Supply & Installation of Pyrolysis Plant (Plastic to Oil plant)

The pyrolysis process of low temperature Pyrolysis Plant / PAF/ CATALYTIC THERMAL DECOMPOSITION breaks down the Plastic feedstock in to the following products,

- 30-90% of the output is mixed low Sulphur diesel Alternative fuel, we call it Petro **Alternate Fuel (PAF)**, which can be used in industrial boilers, generators, or can be further refined into diesel and gasoline by the refinery.
- 5%-42% is solid residue, which can be used as a heating source similar to, lean coal.
- 5%-28% is combustible gas which is recycled back to the furnace as heat.

Cycle Time:

Description	Time in Hrs
Feeding	23
Heating	12-16
Cooling	6
Carbon Removal	2

The above cycle is only for reference and is dependent on human efficiency and type of feedstock.

Environment Friendly Process:

Wet Scrubber system ensures absolutely no black smoke from the stack.

The extra incondensable gas will be recycled for heating reactor and hence no gas pollution

Every junction of the reactor is in good sealing situation with professional sealing material.

Properties of Petro Alternate Fuel:

Fuel Property	Petro Alternate Fuel (PAF)	Diesel (ASTM)
Density @ 15°C g/cm³	0.78-0.9	0.82
Kinematic viscosity @ 50°C cStoke	1.79	2.5
Water Content %(v/v)	0.1	0.1
Ash % (m/m)	0.05	<0.01
Sulphur Content %	0-0.35	0.15-0.30
Carbo Residue %	<0.5	0-0.5
Cleaveland Flash Point °C	<72	52-96
Gross Calorific Value Kcal/Kg	10000-11000	10800

Technical parameter

1	Equipment Model	2000 kg Plastic Pyrolysis plant
2	Raw material	Plastic
3	Structural form	Horizontal Static reactor
4	24-hour Capacity	1.25-1.5 ton
5	Oil yield	0.65-1 ton depending upon plastic quality
6	Operating pressure	Normal
7	Material of Reactor	SS 304
8	Thickness of Reactor	As per design
9	Rotate speed of Agitator	N.A
10	Total power	30 HP
11	Mode of cooling	Water cooling
12	Kind of transmission	Internal gear drive
13	Noise dB(A)	≤85
14	Size of Reactor(D×L)	As per design
15	Working form	Semi continuous Batch Type

Equipment list:

Sr. No	Description	Material
1	Pyrolysis Reactor with 50mm Cerawool insulation.	SS 304 plates
2	Receiver Tank	M.S Plate
3	Oil Water Separator (Safety Equipment)	M.S Plate with BS 10 Table D Flanges
4	Condensers (Horizontal or vertical as per design)	M.S Plates and seamless pipes
5	Gas Bubbler (Safety Equipment)	M.S Plate with BS 10 Table D
6	Storage Tank (Heavy Oil)	M.S Plate with BS 10 Table D
7	Storage Tank (Medium Oil)	M.S Plate with BS 10 Table D
8	Gas Scrubber tank with high pressure non clogging nozzles, gear pump and packing (Dedusting and Gas Cleaning)	M.S Plate with BS 10 Table D
9	Chimney 40ft long 6" diameter	ERW C Class Heavy duty pipe with bottom cone.
10	Frame structures for the assembly	Fabricated
11	Flaring System for burning exhaust gases (optional)	Proprietary Extra
12	Control Panel	Manual
13	Foundation frame for furnace	Fabricated
14	Vacuum Pump System for combustible gas removal. Safety Equipment.	included
15	Burners with separate pumping and filtration unit	Included
13	Catalyst/ or equivalent chemical	2000 Kgs
14	Conical bottom water Separation tank with gear pump for transfer from batch tank	included
15	Installation supervision inclusive of visits to site for marking, guiding civil work, Training and taking 2 processes on site. Travel Accommodation and food to be provided.	Included
16	All Instruments like Pressure gauges, Temperature gauges, safety release valves	1 Set
17	Supply & Installation of 30 KL Storage tank under SBM grant	30KL

Operation & Maintenance:

Operation & Maintenance of entire machinery with repairing if require, also 1 operator & 1 helper for 1 year and O&M cost included in tender amount.

Payment Condition:

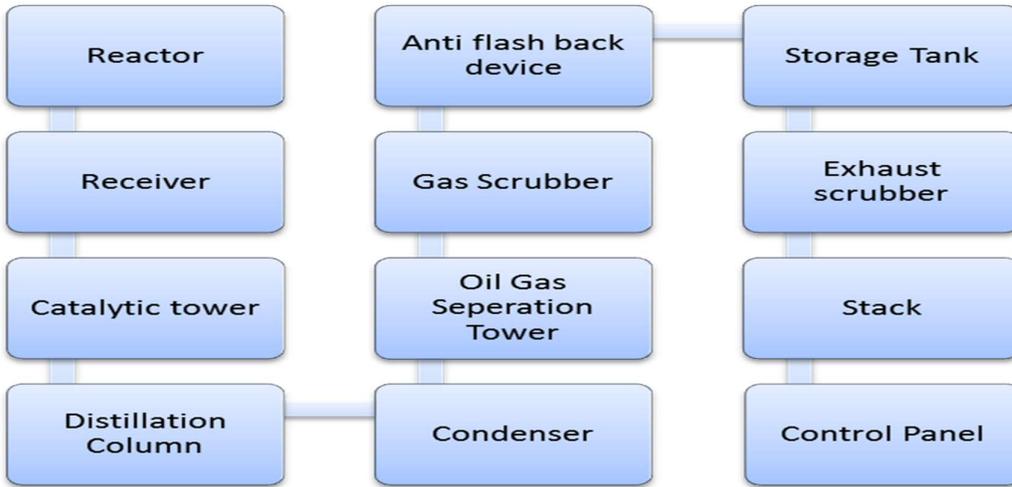
- On Supply of All machinery : 65 %
- On Installation of machinery : 15 %
- On Commissioning of machinery : 15 %
- On O & M cost : 5% (for 1 Year O&M)

Stamp & Sign of
Contractor

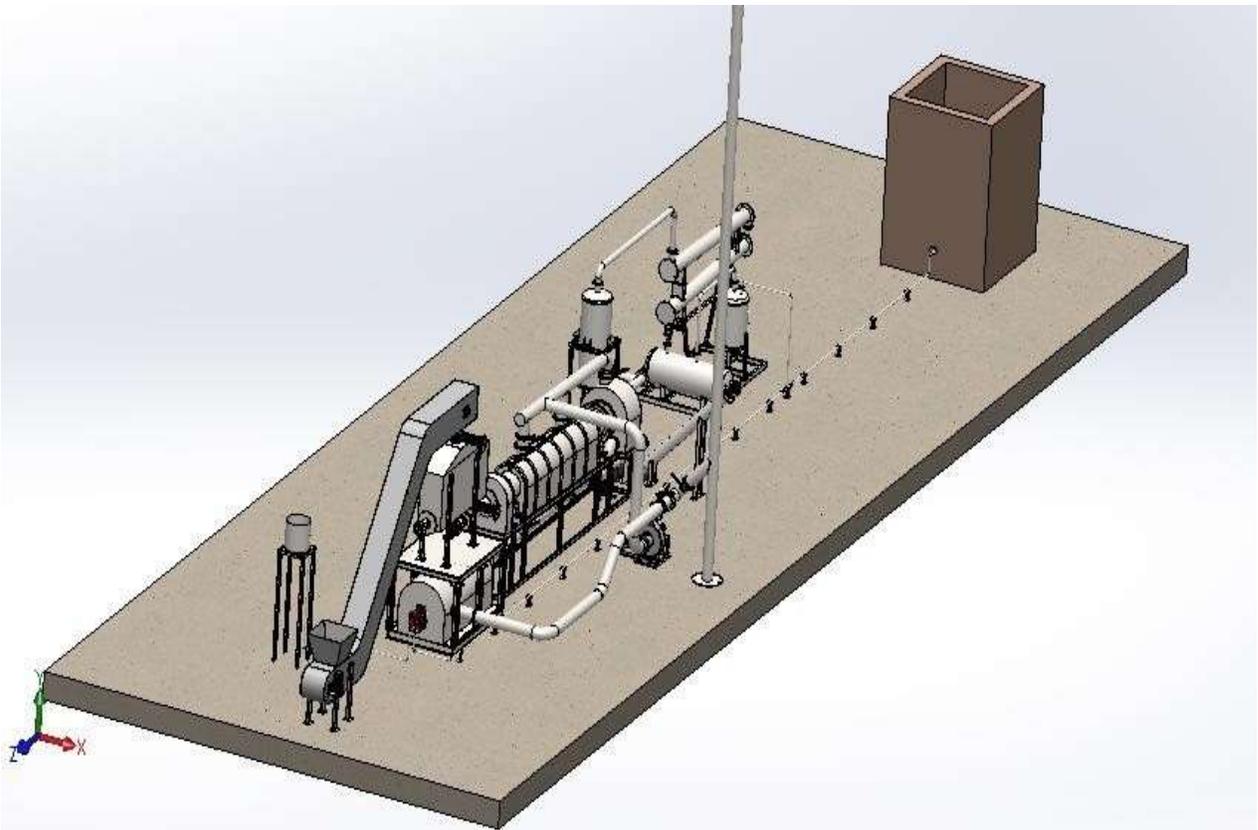
Engineer
Botad Nagarpalika

Chief Officer,
Botad Nagarpalika

Overview of pyrolysis plant:



Pyrolysis Technology/ Catalytic Thermal Decomposition (CTDT) Systems



Pyrolysis Technology Machinery:



BOTAD NAGARPALIKA

Name of Work: Bid Document for Pyrolysis Plant (Plastic to Oil plant) machinery for Solid Waste Management under SBM:1 Grant for Botad Nagarpalika (3rd Attempt)

SCHEDULE "B"

DESCRIPTION OF ITEM	Qty.	Rate	Unit	Amount
Item No. 1				
Supply & Installation of Waste Plastic Pyrolysis machinery plant of Catalytic Thermal Decomposition/ or equivalent technology of 2.00 TPD capacity Plant including all material of civil, plumbing, mechanical and electrical work for complete entire project with labour including 1 year O & M under SBM grant.	1.00	7650000.00	No.	7650000.00
Item No. 2				
Supply & Installation of 30 KL Storage tank under SBM grant.	1.00	900000.00	No.	900000.00
Total Rs.				8550000.00

I/We am/ are willing to carry out the work @ _____ % Above /Below _____ Percentage (Should be written in Figures and Words) of the Estimated rates mentioned above amount of my/ our Tender work out as under.

Estimated Amount	Estimated Amount
Tender Rs. 85,50,000.00	Tender Rs. 85,50,000.00
Add % Rs.	Deduct % Rs.
Total Rs.	Total Rs.
(In Words	(In Words

Stamp & Sign of Contractor

Engineer,
Botad NagarpalikaChief Officer
Botad Nagarpalika

MATERIAL MAKES**LIST OF APPROVED MAKES****LIST OF APPROVED MATERIALS / BRANDS FOR BUILDING WORKS**

1.	Cement-OPC53grade	Ambuja, Ultratech, Sanghi, Sidhhi, Hathi or as approved by Consultant/Client
2.	Reinforcement Steel	Tata-Tiscon, Vizag, Sail, Essar, Kamdhenu, Nilkanth, Electro TMT or as approved by Consultant/Client
3.	Structural Steel	Tata, Asian or as approved by Consultant/Client
4.	Red Oxide(For IPS Flooring)	'Shalimar', 'Garware' or equivalent or as approved by Consultant/Client

1. Only one brand and only ISI quality to be used,
2. Equivalent brand may be permitted to be used only after written permission of Consultant/Client
3. Wight bridge is ISO company & approval from government done by bidder.

Note:

Equivalent brand with relevant ISI standard can be used but with prior approval of Consultant / Chief Officer, Botad Nagarpalika.

The above name of the manufacturers is mentioned in preferential order. Please quote accordingly. The successful Bidder will have to supply the make in consultation with the Clients / Consultants / without any extra cost.

As far as possible, the successful Bidder will have to place order directly to the manufacturer

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NOTES ON BILLS OF QUANTITIES

(A) GENERAL

- 1.0 Rates quoted shall include all the operations, materials etc., mentioned in the specifications of respective items of work, bills of quantities, and these notes and required to complete the job.
- 2.0 Rates quoted shall include royalty, monopoly charges, and any other taxes (including sales tax on works contract) and duties levied by the Government or local bodies except where stated other wise in this contract.
- 3.0 The words "as specified", "as described", "as shown", "as directed" or "as approved" shall mean as described in the specifications, bills of quantities and other tender documents as shown on the drawings and as directed or as approved by the Consultants/Employer.
- 4.0 The following notations will mean as below appearing in the Bills of Quantities and specifications:
 - (a) Cu.M., CM, CIVIT - Cubic metre
 - (b) Sq.m, SM, Smt - Square metre
 - (c) Rm., RM, Rmt - Running metre
 - (d) No./Nos. - Number/numbers
 - (e) Kg. - Kilogram
 - (f) M.T. - Metric tonne.
- 5.0 For the general guidance of the contractors preliminary tender drawings have been shown in the Chief Officer / Nagarpalika office / Employers Consultants office. The detailed working drawings shall be issued from time to time during the execution of the work so as to suit the time and progress chart prepared initially and/or modified subsequently to suit the requirements of the Employer/Consultants.
- 6.0 The execution drawings may have to be revised from time to time to suit the requirements of the Employer. Such changes will not entitle the contractor to any extra payment, claim or compensation other than executed and measured work, whether during the contracted period or during the extended period of completion.
- 7.0 The rates quoted for various items of work shall include working in all conditions including in/under water, liquid mud, foul conditions etc., and shall also include bailing or pumping out water by dewatering pumps or by special methods, from the foundations, basements or any other place of construction, collected from rains, or any other source whatsoever, at any time, till the completion of work including all suspension period and delays whatsoever.
- 8.0 The rates quoted unless otherwise specified, shall include works in all shapes, straight, inclined, curved etc., and all sizes as shown or as required.
- 9.0 The rates quoted shall include construction, before starting of excavation, protection, and maintenance through out the construction period, of pucca masonry pillars, showing main centre line of buildings, grid line and levels.
- 10.0 The contractor shall afford all reasonable facilities and cooperation including clearance of site, use of existing scaffolding to the various other agencies and contractors for services not included in his contract working on the site simultaneously so that the entire work and proceed smoothly to successful completion.
- 11.0 The contractor shall allow proper coordination and allow execution of work by other agencies as required along with the civil work.
- 12.0 The rates quoted shall include the cost of supplying photographs showing the work in progress from various angles, to the Employer and the Consultants separately. This shall be as per instructions of the Consultants /Engineer-In-Charge.

- 13.0 The rate quoted in the Bills of Quantities to be full and inclusive of works. described in the bills of qualities, specifications and other documents including all costs and expense which may be required for the execution of the work described together with other associated items such as general risks, liabilities and obligations, construction of temporary stores, buildings, fencing, watching, lighting, insurance, labour regulations, indemnity, maintenance and the like set for the or implied in the tender documents.
- 14.0 The contractor shall submit, to the employer Consultants for their approval samples and shop drawings required in the specifications or by the Architect. The approval of these shop drawings and samples will be general and will not absolve contractor of the responsibility of the correctness of the samples and shop drawings. At least 6 copies of the approved shoo drawings shall be supplied by the contractor at his own cost to the Architect for distribution to various agencies at site.
- 15.0 The Bidder must see the site conditions, drawings and take all the aforesaid factors and the foregoing factors stated under various trade sections while quoting the rates, as no extra will be allowed on any ground arising out of, or relating to the a foresaid and foregoing factors.
- 16.0 Bidders are not entitled to make any corrections and/or additions in the tender script.
- 17.0 Contractor is responsible for execution of the works as specified in drawings, specifications etc. to the satisfaction of architect/consultants/Engineer-In-Charge.
- 18.0 Statement of the cortical consumption of some of the materials for different items are given separately.
- 19.0 Wherever Consultants / Consultants is mentioned in the documents it should be read as Engineer-In-Charge /Owner/Purchaser/ Consultants /Consultants.

(B) TRADEWISE

1.0 EXCAVATOR:

- (a) The prices for all excavations shall also include for leveling and ramming the bottoms of excavations to receive concrete, hardcore etc. as may be required including trimming to slope where necessary.
- (b) Any bricks or gravel found on the site which may be suitable as hardcore for building purpose is to remain the property of the Employer and if approved by the Engineer in-charge may be used in the works. The hard core soused shall be measured and value there of adjusted in the bill so quantities on completion.

2.0 CONCRETOR:

- (a) Work included in this bill shall be carried out as described in the specifications.
- (b) The rates for the items in this bill are to include for all requirements of the specifications whether such requirements are mentioned or not.
- (c) Payments for concrete will be made on the unit rate quoted for the respective items in the schedule of quantities. Rates of all R.C.C. work shall be based on 20mm maximum size aggregate.
- (d) Payment of rein for cements hall be made as specified in specifications.
- (e) Rates for concrete works are to include for laying or working the top surface to slight slopes where indicated on the drawings. Except where otherwise described all form work to in situ concrete shall be paid in respective item of Formwork.
- (f) Rates of concrete shall also include for forming drip moulds at concrete slabs and beams edges where required.
- (g) Rates of concrete shall include for all the structural members of all types and shapes (circular, curved, octagonal etc.) as shown in drawings unless otherwise

specifically mentioned in the Bills of Quantities.

- (h) Deductions shall be made in the concrete as under:
 - i) No deduction shall be made in the concrete and no payment will be made for shuttering, for providing or keeping holes/gaps not exceeding 0.1 cum. or under and openings in walls, floors, roof slabs and the like not exceeding 60cms. Eithersidesuperficial.
 - ii) The volume occupied by reinforcement shall not be deducted.
- i) No honeycombing or defective workmanship shall be allowed. No touching, plastering or other method so rectifying shall be resorted to without prior approval in writing of the Consulting Engineer/Engineer-in-charge/Consultants, who shall decide, whether the defective work in question shall be demolished or rectified and the same also shall be carried out by the Contractor at his own expenses. If the Consulting Engineer / Engineer-in-charge/Consultants are satisfied that the work in question does not call for dismantling or the work does not lend itself for rectification, he shall decide upon appropriate deduction in the rates quoted by the Contractor for standard workmanship.
- j) Expansion, Construction joints wherever necessary shall be provided as directed and as specified without claiming anything extra (except for separate item for providing and laying special material, If specifically mentioned in the Bill of Quantities.) The rates shall include necessary scaffolding, tools, plants, etc. required for the concrete at all levels, unless otherwise specifically mentioned in the Bill of Quantities.
- (k) Rates for various items for this trade shall be inclusive of following:
 - i) Shuttering of whatever height required. Centering/shuttering in curved shape and in slope.
 - ii) Centering plate so centering boards, planks etc. as required.
 - iii) Nails, wires, bolts, nuts, washers, etc. as required.
 - iv) Making forms in line level as required including raking, cutting etc.
 - v) Perforating the same where reinforcement is left protruding from concrete for future connections.
 - vi) All fillets to form throats or chamfers not exceeding 8cms.wide.
 - vii) Small surfaces such as the exposed end soft beams and capping.
 - viii) Splay edges, notching, allowances for over laps and passing at angles, battens, wedging, easing, striking and removal.
 - ix) Cutting all necessary holes in formwork for plumbing and electrical pipes and conduits where cast in to concrete.
 - x) Placing of rainwater/drain pipes, if any in concrete before concreting is done.
 - xi) Cleaning of all the plates, or centering boards, etc. and applying colour less oil.
 - xii) Smoothing of projected form joints etc.
 - xiii) All wooden purpose pipe staging with necessary bolts, nuts, bracings, clamps, wooden purlins etc.
 - xiv) Any type of necessary scaffolding for all heights.
 - xv) Rate includes for providing and placing cover blocks, preparing chairs, preparing and testing concrete cubes, curing of work done, testing of all ingredients of concrete and reinforcing bars procured by the contractor.
 - xvi) Hacking of concrete surface to receive plaster or other finishing, applying cement slurry before placing concrete.
 - xvii) If hand mixing is permitted by the Architect then 10% extra cement shall be added by the contractor without charging any extra.
 - xviii) Rate includes preparation of concrete surface and bonding treatment as specified in the specification.

- xix) Before placing concrete, hardened concrete and foreign material shall be removed from the inner surfaces of the conveying equipments.
- xx) Arrangement for testing shall be made by contractor without charging any extra.

3.0 BRICKLAYER:

- (a) Work included in this bill shall be carried out as described in the specifications.
- (b) The rates for the items in this bill are to include for all requirements of the specifications whether such requirements are mentioned or not.
- (c) Rates for various items in this bill are to include for:
 - i All raking or false cutting.
 - ii Chamfering all external angles if instructed.
 - iii Extra cutting for forming rebated reveals or squint or birds mouth angles.,
 - iv Cutting and fitting brick work to ceiling.
 - v Bedding and pointing to wood frames.
 - vi Cutting and pinning ends of timbers, lintels. Steps etc.
 - vii Leaving small holes as necessary for pipes, conduits etc.
 - viii Cutting and bonding 3"(8cms.) brick on edge partitions to 4.5" (11 cms) thick brick walls.
 - ix Scaffolding will be double or single for doing brick work at all levels.
 - x Necessary tools, plant required for this work.
 - xi Leaving too these or steps as instructed by Engineer-in-charge for exposed brick work.
 - xii Pointing to expose brick work in their respective items.
 - xiii Providing 2Nos.of6mmdia. M.S. bars embedded in mortar at every fourth course in partition wall.
 - xiv Curved (in plan) and corbelled brick work.

4.0 PLASTERER:

- (a) Work included in this bills hall be carried out as described in the specifications.
- (b) The rates for the items in bill are to include for all requirements of specifications whether such requirements are mentioned or not.
- (c) The rates for various items appearing in this bill shall include
 - i Raking out joints of brick work or raking concrete for key,
 - ii Work done over head or in confined space sand in narrow widths,
 - iii Thoroughly watering surfaces before the plastering,
 - iv Protection of plaster until handed over,
 - v Forming coves at junction,
 - vi Forming 10 mm. to 30 mm. wide and 12 mm deep grooves vertically or horizontally as required at junctions of ceiling and wall, skirting, dado, floors and at joints of concrete and masonry work,
 - vii Forming drip moulds / grooves where necessary and directed,
 - viii Scaffolding, single, or double as warranted for the particular work and as approved by the Consultants,
 - ix Making sample of respective item for approval, if instructed by Engineer-in charge without charging any extra,
 - x Watering the brick surface and applying cement slurry to RCC surface before plastering,

- xi Curing of work executed,
- xii Necessary patta as required,
- xiii Providing wire mesh/chicken mesh as specified and directed at the junction of two different materials if necessary,

5.0 PAVER & TILES:

- (a) Work included in this bill shall be carried out as described in the specifications.
- (b) Rates for the items in this bill are to include for all requirements of the specifications whether such requirements are mentioned or not.
- (c) Rates for various items appearing in this bill shall include for:
 - i Finishing paving sand leveling to falls and cross falls as directed,
 - ii First and subsequent cement or other bedding coat to receive paving's and for joints,
 - iii Cleaning of floor before paving is laid,
 - iv Protection and cleaning,
 - v For corner and irregular pieces of facing tiles, vi All raking or straight cutting,
 - vii All fairs play outs,
 - viii All internal fair-mitered angles including accessories,
 - ix No extra will be paid for chiseling the brick work to obtain dado work flush with plaster above,
 - x Necessary tools, plants, machinery etc.,
 - xi Machine hand polishing and wax polish,
 - xii Curing, watering etc.,
 - xiii Mortardroppingshallnotbeallowedonfinishedtilesorpolishedorroughstonefloorsunderanycircumstances.
 - xiv Mortar droppings, if any shall be cleaned off the floors at the end of each day.
 - xv All skirting and dado work shall be flush with the plaster above,
 - xvi The rates shall include necessary tools and plants for the work,
 - xvii Providing,fixingandremovingM.S.angles/channelorwoodenmembersasdirectedtolaYPS/Concretefloorinalternatebays.
 - xviii Keeping grooves on peripheries of wall sand rigid structures in flooring as directed.
 - xix Lime mortar should be ground in Mortar Mill.
 - Xx. Applying cement slurry to old concrete surface before placing new concrete.
 - xxi Fixing of glass strips or P.V.C. strips in flooring.
 - xxii All the materials shall be approved by the Consultants before use.

6.0 MISCELLANEOUS:

Specifications for all miscellaneous items shall be as per relevant trades, as described in their respective sections, if not specified here in below:

7.0 DISMANTLING:

- (a) All materials obtained from dismantling or demolition shall be the property of client, unless otherwise specified and shall be kept in safe custody until taken over by client.
- (b) ThedemolitionshallalwaysbeplannedbeforehandandshallbegotapprovedfromtheE

ngineer-in-chargebeforestarting the work.

- (c) Necessary propping, shoring and or underpinning shall be provided for the safety of the adjoining work or property before dismantling and demolishing is taken up and the work shall be carried out in such a way that no damage is caused to the adjoining work or property. Wherever required enclosures or partitions shall be provided as a safety precaution.
- (d) Necessary precaution shall be taken to keep down the dust nuisance.
- (e) Dismantling shall be done in a systematic manner. All materials which are likely to be damaged by dropping from a height or demolishing roofs, masonry etc. shall be carefully removed first. The dismantled articles shall be passed by hand, where necessary, lowered to the ground (and not thrown) and then properly stacked as directed the Engineer-in-charge.
- (f) Where fixing is done by nails, screws, bolts, etc. dismantling shall be done by taking out the fixing with proper tools and not by tearing or ripping off.
- (g) Any serviceable material, obtained during dismantling or demolition, shall be separated out and stacked properly as directed by the Engineer-in-charge, within the site. All unusable/unserviceable materials, rubbish etc. shall be disposed off as directed by the Engineer-in-charge.
- (h) The rates shall include the cost of all labour involved and tools used in demolishing and dismantling including scaffolding. The rate shall also include the charges of separating out and stacking the serviceable material properly and disposing of fun serviceable material within site or outside the employers premises as directed. The rate shall also include for temporary shoring for the safety of portions not required to be pulled down or of adjoining property, and providing temporary enclosures or partitions, where considered necessary.
- (i) Payments of dismantling work shall be made on the unit rate quoted for the respective items in the bill of quantities.
- (j) For the payment of plaster with structure, thickness of plaster shall be included into thickness of the irrespective items (i.e. brick masonry, R.C.C. work, etc.) wherever it is applicable.

UNIT CONSUMPTION OF CEMENT

No.	Description	Unit	Cement (bags)
AS1EXCAVATOR		NIL	
AS2CONCRETOR			
1.1	In1:5:10proportion(BBCC)	CuM.	2.450
1.2	In1:4:8proportion(BBCC)	CuM.	3.000
3.1	In1:5:10proportion (Hand Broken Metal)	CuM.	2.580
3.2	In1:4:8proportion(-do-)	CuM.	3.400
4.1	Inproportion1:5:10 (Machine cut metal)	CuM.	2.580
4.2	Inproportion1:4:8(M7.5)	CuM.	3.400
4.3	Inproportion1:3:6(M10.0)	CuM.	4.400
4.4	ForRCmembers1:4:8(M7.5)	CuM.	3.400
5.1	Up to plinth(RCC- M-25)	CuM.	9.0
5.1.1	Up to 1.2mfromGL -comp. Wall	CuM.	9.0
5.1.2	Above1.2m-forcomp.wall	CuM.	9.0
5.2	For ground floor	CuM.	9.0
5.2.1	Upto3mfromGL-Ohdtank	CuM.	9.0
5.3	For first floor	CuM.	9.0
5.3.1	From 3m-6m-Ohdtank	CuM.	9.0
5.4	For second floor	CuM.	9.0
5.4.1	From 6m-9m-Ohdtank	CuM.	9.0
5.5	For third floor	CuM.	9.0
5.5.1	From 9m-12m-Ohdtank	CuM.	9.0
5.6	For fourth floor	CuM.	9.0
5.6.1	From 12m-15m-Ohdtank	CuM.	9.0
5.7	For fifth floor	CuM.	9.0
5.7.1	From 15m-18m-Ohdtank	CuM.	9.0
5.8	For sixth floor	CuM.	9.0
5.8.1	From18m-21m-Ohdtank	CuM.	9.0
5.9	For Seventh floor	CuM.	9.0
5.9.1	From21m-24m-Ohdtank	CuM.	9.0
5.10	For eighth floor	CuM.	9.0
5.10.1	From 24m-'27m -Ohd tank	CuM.	9.0
5.10.2	From 27m-30m-Ohd tank	CuM.	9.0
6.1	M-30concreteoverM-25(RCC)	CuM.	1.8
7.0	Damp proof course	Smt.	0.300
9.0	RCC flooring(M-25)	CuM.	9.0
13.0	RCC for machine foundation (M-25)	CuM.	9.0
16.0	Precast concrete blocks covers steps etc.-M-25	CuM.	9.0
17.0	Precast concrete lintels etc.(M-25)	CuM.	9.0
19.0	Encasing with concrete(M-25)	CuM.	9.0
20.0	Cementconcretevata75x 75mm	Rmt.	0.020
20.1	Cementconcretevata100 x100mm	Rmt.	0.040
28.0	Immediate Finish	Smt.	0.080
AS3BRICKLAYER			
1.0	Brick masonry up to plinth	CuM.	1.240
1.1	Brick masonry-compound wall	CuM.	1.240
1.2	-above1.2mfromeveGL	CuM.	1.240
2.1	Brick Masonry For ground floor	CuM.	1.240
2.2	-do-For first floor	CuM.	1.240
2.3	-do-For second floor	CuM.	1.240
2.4	-do-For third floor	CuM.	1.240
2.5	-do-For fourth floor	CuM.	1.240
2.6	-do-For fifth floor	CuM.	1.240
2.7	-do-For sixth floor	CuM.	1.240

2.8 -do-For seventh floor CuM. 1.240

No.	Description	Unit	Cement (bags)
3.1	115mmth.BrickPartitionUptoplinth	Smt.	0.210
3.2	-do-For ground floor	Smt.	0.210
3.3	-do-For first floor	Smt.	0.210
3.4	-do-For second floor	Smt.	0.210
3.5	-do-For third floor	Smt.	0.210
3.6	-do-For fourth floor	Smt.	0.210
3.7	-do-For fifth floor	Smt.	0.210
3.8	-do-For sixth floor	Smt.	0.210
3.9	-do-For ground floor	Smt.	0.210
4.1	75mm th. Brick Partition Up to plinth	Smt.	0.180
4.2	-do-For ground floor	Smt.	0.180
4.3	-do-For first floor	Smt.	0.180
4.4	-do-For second floor	Smt.	0.180
4.5	-do-For third floor	Smt.	0.180
4.6	-do-For fourth floor	Smt.	0.180
4.7	-do-For fifth floor	Smt.	0.180
4.8	-do-For sixth floor	Smt.	0.180
4.9	-do-For seventh floor	Rmt.	0.180
5.1	LoadWall-23cmwide	Rmt.	0.320
5.2	LoadWall-36cmwide	Rmt.	0.470
5.3	LoadWall-46cmwide	Rmt.	0.520
6.1	Galabid-12cmwide	Rmt.	0.050
6.2	Galabid-23cmwide	Rmt.	0.090
6.3	Galabid-36cmwide	Rmt.	0.140
6.4	Galabid-46cmwide	Rmt.	0,180
10.1	Honeycombrickwork-360mmthick	Smt.	0.420
10.2	Honeycombrickwork-230mmthick	Smt.	0.280
10.3	Honeycombrickwork-115mmthick	Smt.	0.150
11.1	UCR Stone Masonry-Using white stone(Found.& Plinth)	CuM.	1.580
11.2	UCR Stone Masonry-Using black stone	CuM.	1.580
12.1	UCR Stone Masonry-Using white stone(Super Structure)	CuM.	1.580
12.1.1	UCR Stone Masonry- 1.2maboveGL-comp.Wall	CuM.	1.580
12.2	UCR Stone Masonry-Using black stone	CuM.	1.580
12.2.1	UCR Stone Masonry- 1.2maboveGL-comp.Wall	CuM.	1.580
13.1.1	Coarse rubble masonry-white stone-For ground floor	CuM.	1.700
13-1.2	-do-For first floor	CuM.	1.700
13.1.3	-do-For second floor	CuM.	1.700
13-1.4	-do-For third floor	CuM.	1.700
13.1.5	-do-For fourth floor	CuM.	1.700
13.1'. 6	-do- Above1.2rn-comp.Wall	CuM.	1.700
13.2.1	Coarserubblemasonry-blackstone-Forgroundfloor	CuM.	1.700
13.2.2	-do-For first floor	CuM.	1.700
13.2.3	-do-For second floor	CuM.	1.700
13.2.4	-do-For third floor	CuM.	1.700
13.2.5	-do-For fourth floor	CuM.	1.700
13.2.6	-do-Above1.2m- comp. Wall	CuM.	1.700
16.1	Stone-Honey Comb work -Upto10mdepth	CuM.	1.58
16.2	Stone-Honey Comb work -above10mdepth	CuM.	1.58
18.1	Bella stonemasonry groundfloor	CuM.	0.5
18.2	-do-for first floor	CuM.	0.5
19.2	100mm thick Bella stone partition-for superstructure	Smt.	0.15
AS4PLASTERER			
1.1	CementfinishPlaster-12to15mmth.	Smt.	0.160
1.1.1	Cementfinishplaster-6mm thick	Smt.	0.080

No.	Description	Unit	Cement (bags)
1.2	Neeru/sagol finish	Smt.	0.120
1.3	20mmwaterproofaccoproof	Smt.	0.210
1.4	20mmwaterproofhydro-shield	Smt.	0.210
2.0	20-25mmsandfaceplaster	Smt.	0.240
2.1	-using white cement	Smt.	0.160
3.0	15-20mmlapaster	Smt.	0.220
4.1.1	-Raised pointing	Smt.	0.140
4.1.2	-Flush pointing	Smt.	0.100
4.1.3	-Ruled pointing	Smt.	0.100
4.2.1	-Raised pointing	Smt.	0.200
4.2.2	-Flush pointing	Smt.	0.200
4.2.3	-Ruled pointing	Smt.	0.200
5.0	20-25mmzikiplaster	Smt.	0.160
6.0	32mm exposed plaster	Smt.	0.230
6.1	-using white cement	Smt.	0.160
7.0	25mmroughcastplaster	Smt.	0.230
7.1	-using white cement	Smt.	0.100
8.0	20mmsilvicreteplaster	Smt.	0.200
9.0	Unfinished plaster	Smt.	0.140
AS5PAVIOR&TILER			
1.0	PKS-25-37mmthickflooring	Smt.	0.230
1.1	-using30cmsx30cms	Smt.	0.230
1.2	PKS-37-50mmthickflooring	Smt.	0.230
1.3	PKS-50-65mmthickflooring	Smt.	0.230
2.1	-60x 60cms or60x45cms	Smt.	0.250
2.2.1	-8-10cmshigh	Rmt.	0.020
2.2.2	-10-15cmshigh	Rmt.	0.030
2.2.3	-15-20cmshigh	Rmt.	0.030
3.1	-Upto90-120x35cmsin1 pc.	Smt.	0.230
3.2	-Upto45x60cms	Smt.	0.230
3.3	-Upto35x200cmsin1pc.	Smt.	0.230
4.1.1	-Platform top	Smt.	0.270
4.1.2	-Dado	Smt.	0.270
4.1.3	-Horizontal facia	Smt.	0.270
4.1.4	-Vertical facia	Smt.	0.270
4.1.5	-Shelves	Smt.	0.100
4.2.1	61.Madrasstone-platformtop	Smt.	0.270
4.2.2	BMS-Dado	Smt.	0.270
4.2.3	BMS-Horizontal facia	Smt.	0.270
4.2.4	BMS-Vertical facia	Smt.	0.270
4.2.5	BMS-shelves	Smt.	0.100
5.0	RKS37-50mmthickflooring	Smt.	0.160
5.1	-50-65mm thick	Smt.	0.180
5.2	-37-50mm thick	Smt.	0.100
5.3	-50-65mmthick,2sidesdr.	Smt.	0.100
5.4	RKS-strips10-15cms	Smt.	0.230
5.5	PKS-strips10-15cms	Smt.	0.230
5.6	Marble-strips10-15cms	Smt.	0.230
6.0	Red Mandana Stone	Smt.	0.100
10.1	-8-10cmshigh	Rmt.	0.010
10.2	-10-15cmshigh	Rmt.	0.010
10.3	-15-20cmshigh	Rmt.	0.020
12.0	MMT tiles-flooring	Smt.	0.100
12(a)	MM Tchequered tiles-flooring	Smt.	0.100
13.0	Terrazzo flooring	Smt.	0.210
13.1	Terrazzo-dado12mm	Smt.	0.180
13.2	Terrazzo-skirting	Smt.	0.020

No.	Description	Unit	Cement (Bags)
15.0	Marble-20-25mmthick	Smt.	0.270
15.1	For dado	Smt.	0.300
15.2	For skirting	Rr*ht.	0.030
16.0	Marblestrips	Smt.	0.270
17.0	Marble-25-30mmentrance	Smt.	0.300
18.0	Marble/granite facia	Smt.	0.270
18.1	Marble facia	Rmt.	0.030
18.2	Granit efacia	Rmt.	0.030
18.3	Marbogranite facia	Rmt.	0.030
20.0	Granitestone20-25mm thick	Smt.	0.270
20.1	For dado	Smt.	0.270
20.2	-do-for8to10cmshighskirting	Rmt.	0.030
21.0	Yellow jesalmer stone strips	Smt.	0.030
21.1	-do-for PKS strip	Rmt.	0.030
21.2	-do-for marble strip	Rmt.	0.030
22.0	Marble partitions for urinals	Smt.	0.030
22.1	PKS partitions for urinals	Smt.	0.030
22.2	Vitreous china partition	No.	0.030
23.0	Industrial tiles	Smt.	0.090
24.1	50mmthickIPS	Smt.	0.400
24.2	80mmthickIPS	Smt.	0.560
24.4	Extra for hardener	Smt.	0.080
24.5	Waterproof IPS- Hydroschild	Smt.	0.400
24.6	Waterproof IPS- Accoproof	Smt.	0.400
24.8	IPS for skirting	Smt,	0.400
25.0	IPS for steps	Rmt.	0.120
27.1	Glazed tiles-floor	Smt.	0.300
27.2	Glazed tiles-dado	Smt.	0.300
28.0	Brickonedge flooring	Smt.	0.090
29.0	Crazymarble stone flooring	Smt.	0.210
29.1	-Using20-25mm thick marblepc	Smt.	0.210
33.1	-For floor	Smt.	0.300
33.2	-For dado	Smt.	0.300
34.1	-Unglazed tiles	Smt.	0.300
34.2	-Glazed tiles	Smt.	0.300
35.1	-Unglazed tiles	Smt.	0.300
35.2	-Glazed tiles	Smt.	0.300
36.0	China mosaic flooring	Smt.	0.400
37.0	Crazy kotah stone flooring	Rmt.	0.210
37.1	Using20-25mmkotahstone	Smt.	0.210
39.0	Granamite flooring	Smt.	0.300
39.1	-for skirting	Rmt.	0.030
39.2	Marbogranite tiles for flooring	Smt.	0.300
39.3	10cmshighmarbograniteskirting	Rmt.	0.030
39.4	Marbogranite tiles for dado	Smt.	0.300
41.0	Marbleplatform (sandwitch)	Smt.	0.150
41.1	Granite platform	Smt.	0.150
42.0	PKSplat form(sandwitch)	Smt.	0.150
42.1	PKSpartition	Smt.	0.150
43.0	Redgranite flooring	Smt.	0.300
43.1	-do-for graniteshelves	Rmt.	0.030
44.0	Chequered paver tiles	Smt.	0.300
44.1	Concretepavingblock-47mmthick	Smt.	---
44.2	-do-for55mmthick	Smt.	---
45.0	55to60mmthickconc.Pavingblock	Smt.	---

Approved name of Manufacturers: Allowing using steel / cement in being supplied by contractors in civil works

Sr. No.	Name of approved Cement Company & their Brand Name in Market (ONLY OPC GRADE-53)	
1	A.C.C. Cement	A.C.C.
2	Ambuja Cement	Ambuja (OPC)
3	Binani Cement	Binani
4	Birla Cement	BirlaA-1
5	Gujarat Sidhee Cement	Sidhee
6	Sanghi Cement	Sanghi
7	Saurashtra Cement	Hathi
8	Ultratech Cement(L&T)	Ultra-tech

OR EQUIVELENT BRAND CANBE USE

Sr. No.	NameofapprovedSteelManufacturerFe-500D/CRSSteel
1	Tatal ron & steel Co. Ltd (SAIL) - CRS Steel
2	Jindal
3	Vizag
4	Essar Steel Ltd
5	Friends
6	Kamdhenu
7	Electrothem ETTMT
8	Bhawalka Steel Industries, Mumbai
9	JSW

**OR EQUIVELENT BRAND CAN BE USE AFTER APPROVAL OF
EIC/BOTAD NAGARPALIKA**

Sr. No.	Name of approved Material Make List	
1	Sand	Locally available good quality coarse sand
2	Bricks	First quality Bricks as per IS Standards OR APPROVEDBYARCHITECTOREIC
3	Glazed/Ceramics Tiles	KAJARIA, Simero, Nitco, JOHNSON,QTONEOR Equivalent or APPROVED BY ARCHITECT /EIC /Client (As Per IS:15622,Group B-1)
4	Vitrified Tiles	KAJARIA, Simero, Nitco, JOHNSON,QTONEOR Equivalent or APPROVED BY ARCHITECT/ EIC/ Client(As Per IS:15622,Group B-1)
5	Marble	16to18mm thickness, Classic Beige, Classic fine, Crema belessime, ORAPPROVED BY ARCHITECT / EIC/Client
6	Flush Door	Zenith/Faria Wala/ Archid OR Equivalent or APPROVEDBYARCHITECT/ EIC/Client
7	Plywood(B.W.P.)	Green / Mayur, EURO OR Equivalent or APPROVEDBYARCHITECT/ EIC/Client
8	Plumbing Fittings	Jaquar, Kohler, Hindware, Plumber OR Equivalent Or APPROVED BY ARCHITECT/EIC/ Client
9	MS Pipes, MS Plates, MS Flats, MS Bars, Girders, Angles & Channels	Tata/Steel Authority of India(SAIL)/Jindal /Essar OR Equivalent or APPROVED BY ARCHITECT/EIC /Client
10	Epoxy Grouting/Chemical	Pidilite, BASF,BALENDURA, Laticrete/KERAKOLL OR Equivalent or APPROVED BY ARCHITECT/EIC /Client
11	Aluminum Sections for Doors-Windows-Ventilators	"Jindal Aluminum Ltd./Hindalco /Banco" Make OR Equivalent or APPROVEDBYARCHITECT/EIC/Client
WATERSUPPLY,PLUMBING,SANITARYWORKS:		
12	UPVC-SWR Pipes & Fittings: (ISI Quality)	"Prince Pipes & Fitting Pvt. Ltd. / Finolex Industries Pvt.Ltd. / ASTRAL Pipes Pvt. Ltd. /Make OR Equivalent or APPROVED BY ARCHITECT /EIC/Client
13	"A" Pipes & Fittings: (ISI Quality)	"Prince Pipes & Fitting Pvt.Ltd./Finolex Industries Pvt. Ltd./ASTRAL Pipes Pvt. Ltd./Make OR Equivalent or APPROVED BY ARCHITECT /EIC/Client
14	"C" Pipes & Fittings: (ISI Quality)	"AstralPolyTechnikLtd./AshirvadPipesPvt.Ltd./FinolexIndustriesPvt.Ltd.MakeOR Equivalent or APPROVEDBYARCHITECT/ EIC/Client

15	Water Storage Tank (ISI Quality)	"Sintex", National, Plasto, Ganga OR Equivalent"-OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
	SANITARYWARES:	
16	European - WC Pan (Premium Quality)	"Hindware / Cera / Jaquar" Floor Mounted type, P or Strap Colours-white & Matching Colour Seat Cover Make OR Equivalent or APPROVED BY ARCHITECT /EIC/Client
17	PVC Seat (Premium Quality)	"Hindware/Cera/Jaquar" Make OR Equivalent or APPROVED BY ARCHITECT /EIC/Client
18	Flat Back Urinal (Premium Quality)	"Hindware/Cera / Jaquar" Colours- White Make OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
19	Flat Back Wash Basin (Premium Quality)	"Hindware/Cera/Jaquar"Colours- WhiteMakeOREquivalentorAPPROVEDBYARCHITECT/EIC/Client
20	GYP SUM BOARD FALSECEILING	GYPROC-SAINTGOBAIN/USG-BORAL Make OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
21	REBARRINGSYSTEMS	HILTI/FISCHER Make OR Equivalent or APPROVEDBYARCHITECT /EIC/Client
22	Water proofing compounds	BASF,Dr.Fixit,BALENDURA,CICONo1,PIDILITE, MAPAI, APORVA OR Equivalent or APPROVEDBYARCHITECT/ EIC/Client
23	Paints & Distemper	AsianPaints,Asian(Royal)Jotun,Nerolac,DulexBergerpaints,OREquivalentorAPPROVEDBYARCHITECT/ EIC/Client
24	Glazing	Modi float IndoAshai/Saint Gobbin Make OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
25	S.S. Hardware	Godrej / Kich / Hettich Make OR Equivalent or APPROVED BY ARCHITECT/ EIC/Client
26	Hinges	HETTICH,HAFLES,GRASS, FERRARI,BLUM,OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
27	HotmeltGlue	ICI,JOWAT,BOSTIK,KLIBERT,OREquivalentorAPPROVEDBY ARCHITECT/EIC/Client
28	Veneer	APPROVEDBYORAPPROVEDBYARCHITECT/ EIC /Client
29	Laminations	AICA,SUNDEK,ASSOCIATES,ROYALCROWN, MERINO, VIRGO, RIOLAM, OR Equivalentor
30	Particleboard	ASIS,ASSOCIATE,BHAGWATI, LOREM, OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
31	MDF Board	ASIS, ASSOCIATE, GREEN, LOREM, OR Equivalent or APPROVED BY ARCHITECT /EIC/Client
32	Pre-laminated Boards	BHAGVATI BOARDS, ASSOCIATES, LOREM,ROYALET TOUCH , PANAMA, ASISOR Equivalent or APPROVED BYARCHITECT/EIC/Client
33	Edge bands	REHAU, DOLKEN, FIBROOR Equivalent or APPROVED BY ARCHITECT/ EIC/Client

34	Eccentric Locking	HAFLES, HETTICH, TITUSOR Equivalent or APPROVED BY ARCHITECT/EIC/Client
35	Adhesive	FEVICOL, Euro, Bluecoat, OR Equivalent or APPROVED BY ARCHITECT/ EIC/Client
36	Miscellaneous Hardware	EBCO,EG,HETTICH,HAFLES., KOMBOOR Equivalent or APPROVED BY ARCHITECT/EIC/Client
37	Locks	ARIES,EG, KOMBO,GODREJOR Equivalent or APPROVED BY ARCHITECT/EIC/Client
38	Drawer Channel	EBCO, HETTICH, MEPLA, EGOR Equivalent or APPROVED BY ARCHITECT/EIC/Client
39	Chair	Durian. Featherlite, HOF, Godrej, OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
40	Sofa	Durian. Featherlite, HOF, Godrej, OR Equivalent or APPROVED BY ARCHITECT/EIC/Client
41	Mobile Compactor	Kompress,Godrej,Durian,HOFOR Equivalent or APPROVED BY ARCHITECT/EIC/Client
42	Curtain	Arolux, Vista, Levelor OR Equivalent or APPROVED BY ARCHITECT/ EIC/Client
43	Wall Paper	Arte/Omexco/Rasch OR Equivalent or APPROVED BY ARCHITECT/ EIC/Client

**ABOVE ALL ITEMS EQUIVELENT BRAND CAN BE USE AFTER PRIOR
APPROVAL OF CONSULTANT /BOTAD NAGARPALIKA**

