

GOVERNMENT OF MAHARASHTRA
GRAMPANCHAYAT BHADSHIVANI TQ KARANJA
DIST WASHIM

TENDER DOCUMENT
FIRST CALL

Name of work: CONSTRUCTION OF CEMENT CONCRETE ROAD AT
BAUDH WASTI GP BHADSHIVANI TQ KARANJA DIST WASHIM

DISTRICT : WASHIM

Sarpanch / Sachiv,
GP BHADSHIVANI, TQ KARANJA
Zilla Parishad, Washim.

Contractor

No. of Corrections

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Name of work CONSTRUCTION OF CEMENT CONCRETE ROAD AT BAUDH
WASTI GP BHADSHIVANI TQ KARANJA DIST WASHIM

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INSTRUCTIONS TO THE TENDERER

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Sr. Particulars No.

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**PLEASE ATTACH SCANNED COPIES OF FOLLOWING DOCUMENTS
while submitting the E-Tender**

1. Declaration of the Contractor on Rs 100 bond paper in PDF format.
2. UTR in the form of RTGS/NEFT/EFT for cost of tender document as mentioned in notice inviting tender.
3. UTR in the form of RTGS/NEFT/EFT for Earnest Money Deposit as per mentioned in notice inviting tender.
4. A certificate or Photostat copy of valid Registration Certificate.
5. Photostat of attested copy of Partnership deed and power of attorney, if necessary.
6. Valid Income Tax Clearance Certificate, GST, Professional Tax Cert and clearance cert in original Photostat copy.
7. A list of works tendered for and in hand (Statement No. I)
8. A list of work carried out (Statement No. II)
9. A list of work of plant and machinery immediately available with the Tenderer for this work (As per page no 10) (Statement IV)
10. Details of Site lab as per page No 12 (Statement VI)

Important Note :

Please note that omission to attach any of the above documents is likely to invalidate the tender.

DETAILED TENDER NOTICE

Grampanchayat BHADSHIVANI Tq KARANJA , Washim District **NOTICE INVITING E-TENDER NO. 1/2026-2027 (I call)**

SARPANCH/SECRETORY Grampanchayat BHADSHIVANI Tq KARANJA Dist Washim.(MS) invites online percentage rate tender from contractors registered in Zilla Parishad in appropriate class / category for following Works in District Washim.

Sr.No	Name of Work	Estimated Cost Of Work Rs.	EMD Rs	Class of Contractor	Tender Fee in Rs
1	CONSTRUCTION OF CEMENT CONCRETE ROAD AT BAUDH WASTI GP BHADSHIVANI TQ KARANJA DIST WASHIM	600000/-	6000/-	CLASS VIII &	500/-

1. The complete bidding process will be **online (E-tendering)**.
All the notifications regarding this tender notice hereafter will be published online on website <http://mahatenders.gov.in>
2. Bidding document can be seen and downloaded from the website “<http://mahatenders.gov.in>” from 09.00 hours on 18/05/2026 to 25/05/2026 up to 15.00 hours for the work
3. The bid can be submitted in electronic format on the website “<http://mahatenders.gov.in>” from 09.00 hours on 18/05/2026 The deadline for submission of bid is up to 15.00 hours on Dt. 25/05/2026
4. Bids MUST be accompanied with.
5). Bidder must have submit the tender fee & EMD (1%) Should be submitted online or DD shown in beneficiary details on portal only. Or Offline To Grampanchayat BHADSHIVANI
6. Bid shall be treated as ‘invalid’ if scanned copies as mentioned in (4) & (5) above are not Submitted online along with the bid.
7. Technical Bids will be opened online on 26/05/2026 at 15:00 hours on website <http://mahatenders.gov.in>” in the Office of the **Sarpanch / Sachiv Grampanchayat BHADSHIVANI Tq KARANJA Dist Washim** and financial bid may also open on same day and same time if Possible
8. Security Deposit (total 4 % of the cost of bid) to be submitted at the time of agreement is 2.% of contract price and balance 2.% will be deducted from running billto whom is applicable.
9. The guidelines to download the tender document and online submission of bids and Procedure of tender opening can be downloaded from website <http://mahatenders.gov.in>
10. Time allowed for completion is 9 months from the date of work order.
11. Right to reject or cancel any or all the tenders without assigning any reason thereof what so ever is reserved by the undersigned.
12. R.C.C.Design for the Structure will make available by the contractor by his own cost before starting the work & get approval from the competent Authority Charges required for design should bear by the contractor.
13. The contractor must have to set up a site lab at construction site.He must have to submit the ownership documents alongwith the calibration certificate of instrumentsin form no V
14. The amount of earnest money will be forfeited in case of successful contractor does not pay the amount of initial security deposit within the time specified as stipulated by the Executive Engineer and complete the contract documents. In all other cases earnest money will be refundable.
15. The successful bidder shall have to pay, half the Security Deposit in cash or in the form of approved security form and the balance is recoverable through running account bills at the percentage stipulated in the agreement.
16. The validity period of the tender is 90 days from the date of the opening of the tender.

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17. In the event of failure of the tenderer to pay cash security deposit within 10 days (Unless extended in writing by the executive engineer from the date of receipt of notice (sent by Registered post) of acceptance of his tender, the amount of earnest money shall be forfeited to Government. The acceptance of his tender shall be considered as withdrawn Except that, in the event of the notice of acceptance of the tender to being issued within 90 days of the date of opening of tenders, the tenders shall, have the option to be intimated in writing in good time before the expiry of (90 days period) of withdrawing his tender, in which case the earnest money should be refunded in full.
18. Earnest money of the un-successful tenderers will be refunded on their application only after an intimation of rejection of their tender is sent to them or on the expiry of the validity of the validity period whichever is earlier.
19. The acceptance of the tender may be intimated to the contractor telegraphically or otherwise and either by the officer competent to accept the tender or by higher authorities such as Executive Engineer (Works Divn.), Z.P.Washim or Add. C E O Z P Washim or Government and such intimation shall be deemed to be an intimation of acceptance of the tender given by the authority competent to accept the tender.
20. No pages should be removed from, added in, or replaced in the tender.
21. Examination of drawing and site conditions-The tenderer shall in his own interest carefully examine the drawing conditions of contract specifications etc. He shall also inspect the site and shall acquaint himself about the climate, physical and all other conditions prevailing at site, the nature, magnitude, special features, practicability of the works, all existing and required means of communications and access to site, availability of housing and other facilities, the availability of labour and material, Quarries, labour camp site, stores and go downs etc. He shall obtain all necessary information as to the risks, contingencies and other circumstances which may effect and influence the tender. No claims on any of the above or any other factors will be entertained by the Government, should there be any discrepancy, doubt or obscurity as to the meaning of any of the tender documents, or as to the instructions to be observed by him. He shall set forth in writing such discrepancy or doubt or obscurity and submit the same to the Executive Engineer Works Division Z P Washim.
22. The tender submitted by the tenderer shall remain valid for a period of 90 days from the date opening of tenders. Also see para 2 of General Rules etc. of the contract form.
23. The contractor (s) whose tender is accepted is required to note that no foreign exchange will be released by the Department.
24. Tenders, which do not fulfill all or any of the conditions or are incomplete in any respect are liable to summary Rejected.
25. Right to reject any or all tenders without assigning any reasons is reserved. By the undersigned acceptance of the tender lies with the Competent Authority Z P Washim.
26. This notice inviting tender shall form part of the tender agreement.
27. The successful tenderer will be required to produce to the satisfaction of the specified concerned authority a valid and concurrent license issued in his favour under the provision of the Contract Labour (Regular and Abolition) Act, 1970 before starting the work. Failure to do so, acceptance of the tender shall be liable to be withdrawn and security deposit forfeited.

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Grampanchayat BHADSHIVANI
Tq KARANJA Dist Washim

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DECLARATION OF THE CONTRACTOR

(To be submitted by contractor on Rs 100 bond paper in pdf format)

Name of work:

Tender Notice No.:

I / We hereby declare that,

1. I / We are interested in the above named work in the tender notice.
2. I / We have submitted a bid for the said work.
3. I / We have made myself / ourselves thoroughly conversant with the local conditions regarding all materials quarries and labour on which I / We have based my / our rates for this tender. The specifications and leads on this work have been carefully studied and understood before submitting this tender.
I / We undertake to use only the best Quality materials approved by Executive Engineer, or his duly authorized assistant during execution of the work and to abide by the decisions.
4. I / We accept all the terms and conditions laid down in the tender document.
5. The rate quoted by me / us are unconditional, I / we understand that conditional tender is liable for rejection.

Signature
(Contractor)

To,

**Tender Inviting Authority
Sarpanch / Sachiv
GP BHADSHIVANI TQ KARANJA,
Zilla Parishad, Washim.**

STATEMENT NO. I**Details of work tendered for and in hand as on the date of submission of tender.**

(To be submitted by contractor on contractor's letter head in pdf format)

Name of the Tenderer:-

Sr. No.	Name of work	Place & Country	Work in hand		Anticipated date of completion	Work tendered for			Remarks.
			Tendered Cost	Cost of remaining work		Estimated cost	Date when decision in expected	Stipulated date or period of completion	
1	2	3	4	5	6	7	8	9	10

Signature of the Contractor

Contractor

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STATEMENT NO. II**Details of works carried out by the Contractor.**

(To be submitted by contractor on contractor's letter head in pdf format)

Name of the Tenderer:

Sr. No.	Name of Work	Cost of Work	Date of starting	Stipulated date of completion	Actual date of completion	Remarks
1	2	3	4	5	6	7

Signature of the Contractor

Contractor

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STATEMENT NO. III**Details of plant and machinery immediately available with the Tenderer for this work**

(To be submitted by contractor on contractor's letter head in pdf format)

Name of the Tenderer:

Sr. No.	Name of Equipment	No. of units	Kind and make	Capacity	Age and condition	Present Location	Remarks.
1	2	3	4	5	6	7	8

Signature of the Contractor

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STATEMENT NO. IV

List of the Plant and Machinery Which The Contractor must own in his name
(To be submitted by contractor on contractor's letter head in pdf format)

Name of the Tenderer :-

Sr.No.	Description	Nos	No of plant/ Machinery in contractors own name	Whether documents of ownership attached ?
1	2	3	4	5
1	Needle Vibrator	2		
2	Concrere Mixture	1		
4	Tippers	1		
5	Steel Centering	100 sqm		
7	Water Tanker	1		
6	Platevibrator for corner	1		

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STATEMENT NO. V**Details of technical personnel available with the contractor whenever is applicable**

(To be submitted by contractor on contractor's letter head in pdf format)

Name of the Tenderer:

Sr. No.	Name of Person	Qualification	Whether working in field or in office	Experience of execution of similar work	Period for which the person is working with the tender	Remarks
1	2	3	4	5	6	7

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Signature of the Contractor

STATEMENT NO. VI

Site lab

List of the Instruments available in the site lab which the contractor must own in his name
(To be submitted by contractor on contractor's letter head in pdf format)

Name of the Tenderer :-

Sr.No.	Description	Nos	No of plant/ Machinery in contractors own name	Whether documents of ownership attached ?
1	2	3	4	5
1	Set of I.S. Sieves	2		
2	Concrete cube moulds 15x15x15 cm	15		
3	Sitjar 200ml capacity	2		
4	Slump cones	2		
5	Compression testing machine	1		
6	Oven drier	1		
7	Steel tape 25 m,5m	2		
8	Steel rule	2		
9	Electronics Weighing Balance (50 kg capacity)	1		
10	Micrometer Screw Gauge	1		
11	Thermometer	1		
12	Total Sration	1		

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CONDITIONS OF B – 1 CONTRACT

Clause 1. The person / persons whose tender may be accepted (hereinafter called the contractor, which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators, and assigns) shall (A) within 10 days (which may be extended by the Superintending Engineer concerned up to 15 days if the Superintending Engineer thinks fit to do so) of the receipt by him of the notification of the acceptance of his tender deposit with the Executive Engineer in cash or Government securities endorsed to the Executive Engineer (if deposited for more than 12 months) of sum sufficient which will made up the full security, deposit specified in the tender or (B) Permit Government at the time of making any payment to him for work done under the contract to deduct such as will amount to *2 yers.percent of all moneys so payable such deductions to be held by Government by way of security deposit) Provided always that in the event of the contractor depositing a lump sum by way of security deposit as contemplated at (A) above, then and in such case, if the sum so deposited shall not amount to *4 .percent of the total estimated cost of the work, it shall be lawful for Government at the time of making any payment of the contractor for work done under the contract to make up the full amount of 4 Percent by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the contractor to Government under the terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due by Government to the contractor under any other contract or transaction of any nature on any account what over and on the extent of his security deposit being reduced by reason of any such deduction or sale aforesaid the contractor shall, within 10 days there after, make good in cash or Government securities endorsed as aforesaid any sum of sums which may have been deducted from raised by sale of his security deposit or any part there of the security deposit referred to when paid in cash may at the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.

If the amount of the security deposit to be paid in a lump sum within the period specified at (A) above is not paid the tender/contractor already accepted shall be considered as cancelled and legal steps taken against the contract for recovery of the amount, the amount of the security deposit lodged by a contractor shall be refunded along with the payment of the final bill, if the dated upto which the contractor has agreed to maintain the work in good order is over. If such dated is not over only 50% amount of security deposit shall be refunded after 3 month final bill. The amount of security deposit retained by the government shall be released after expiry of period up to which the contractor has agreed to maintain the work in good order is over. In the event of the contractor has agreed to maintain the work in good order then subject to provision of clauses 17 and 20 here of the amount of security deposit retained by the government shall be adjusted towards the excess cost incurred by the department on rectification work.

Clause 2. The time allowed for carrying out the work as entered in the tender shall be strictly observed the contractor and shall reckoned from the date on which the order to commence work in given to the contractor. The work shall thorough the stipulated period of the contract be proceed with all due diligence

*Security
deposit P.W.D.
resolution No.
CAT /1087/CR-
94 Building-2
dt. 14-06-89*

*Compensation
for delay.*

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(time being deemed to be the séance of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide of the amount of the estimated cost of the whole as shown by the tenderer for every day that the work remains uncompleted or unfinished after the proper dates and further to ensure good progress during execution of the work. The contractor shall be bound in all cases in which the time allowed for any work exceeds one month to complete.

Of the work in	of the time
25%	22 days
50%	23 days
75%	23days
100%	22 days

Note:- The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in the blank space kept for the purpose by the officer competent to accept the contracts after taking into consideration the circumstance of each case and abide by the programme of detailed laid down by the Executive Engineer.

The following proportion will usually be found suitable in 1/1, 1/2, 3/4 of the time.

Reasonable progress of earth work, 1/6, 1/2, 3/4 of the total value of sthe work to be done.

Reasonable progress of masonry work 1/10, 4/10, 8/10 of the total value of the work to be done.

In the event of the contractor failing to comply with this conditions he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that the due quantity of work remains incomplete provided always that the total amount compensation to be ad under the provisions of this clause shall not exceed 10 percent of the estimated cost of the work as shown in the tender. Superintending Engineer should be the final authority in this respect, irrespective of the fact that the tender is accepted by Chief Engineer, Additional Chief Engineer, Superintending/Executive Engineer or Asst. Engineer/Deputy Engineer.

Action when, whole of security deposit is forfeited.

Clause 3. In any case in which under any clause of this contract the contractor shall have rendered himself liable to Signature of the Contractor pay compensation amounting to the whole of this security deposit whether paid in one sum or deducted by installments of in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause the engineer, on behalf of the Government of Maharashtra, shall have power to adopt any of the following courses, as he may deem best suited to the interest of Government:-

- The respond the contract (for which recession notice in writing to the contractor under the head of Executive Engineer shall be conclusive evidence) and in that case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government.
- To carry out the work or any part of the work departmentally debiting the contractor whit the cost of the work, expenditure incurred on tools and plant, and charges on additional supervisory staff including the cost of work-charged establishment employed for getting the un-executed part of the works completed

and crediting him with the value of the work done departmentally in all respect in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to the costs and other allied expenses so incurred and so the value of the work so done departmentally shall be final and conclusive against the contractor.

- (c) To order that the work of the contractor be measured up and to take such part there of as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory, staff including the cost of work charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.

In case the contract shall be rescinded under clause (a) above the contractor shall not be entitled to recover or he paid, any sum for any work therefore actually performed by him under this contract unless and until the Executive Engineer shall have certified in writing the performance of the such work and the amount payable to him in respect there of and he shall only be entitled to paid the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor the amount of excess shall be deducted from any money due to the contractor by Government under the contract or otherwise howsoever or from his security deposit or the sale proceeds there of provided, however, that contractor shall have no claim against. Government even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the there courses mentioned in clause (a), (b) or (c) is adopted by the Executive Engineer, reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of or with a view to the execution of the work or the performance of the contract.

Clause 4. In the progress of any particular portion of the work is unsatisfactory the Executive Engineer shall notwithstanding that the general Progress of the work is in accordance with the conditions mentioned in clauses 2, be entitled to take action under clause 3(b) after giving the contractor 10 day's notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action. *Action when the progress of any particular portion of the work is unsatisfactory.*

Clause 5. In any case in which any of the powers conferred upon the Executive Engineer by clause 3 and 4 here of shall have become exercisable and the same shall not have been exercised the non-exercise there of shall not constitute a waving of any of the conditions here of and such powers shall not with standing be exercisable in the event any future case of default by the contractor for which under any clause here of he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Executive Engineer taking action under sub-clause (b) or (c) of clause 3, he may, if he so desires, take possession of all any tools and plant, materials and stores in or upon the work of the site there of or belonging to the contractor, or there of paying or allowing for the same in account at the contract rates, or in the case of *Contractor remains liable to pay compensation if action not taken under clauses 3and 4. Power to take possession of or require removal of or sell contractor's plant.*

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contract rates not being applicable at current market rates, or in the case of contract rates not being applicable at current market rates to be certified by the Executive Engineer whose certificate there of shall be final. In the alternative the Executive Engineer may, after giving notice in writing to the contractor or his clerk of the work, for man or other authorized agent require him to remove such tools and plant, materials, or stores from the premises within a time to be specified in such notice and in the event of the contractor failing to comply with any such requisition, the Executive Engineer may remove them at the contractor's expense or sale them by action or private sale on account of the contractor and at his risk in all respect and the certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause 6. If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidable hindered in its execution or on any other ground he shall apply in writing to the Executive Engineer before the expiration

Extension of time. of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as a foresaid or on which the cause for asking for extension occurred, whichever is earlier and the Executive Engineer, or in the opinion of Superintending Engineer, of Chief Engineer as the case may be if in his opinion, there were reasonable grounds for granting an extension, grant such extension as he thinks necessary or proper.

Clause 7. On the completion of the work the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineer-in-charge) of such completion, but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus materials and

Final certificate rubbish, and shall have cleaned off, the dirt from all wood work, doors, windows, wall, floor or other parts of any building in or upon which the work has been executed or of which he may have had possession for the purpose of executing the work, or until the work shall have been measured by the Engineer-in-charge or where the measurement have been taken by his subordinates until they have received approval of the Engineer-in-charge, the said measurements being binding and conclusive against contractor. In the contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding surplus materials and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer-in-charge may at the expense of the contractor, remove such scaffolding, surplus materials and rubbish, and dispose off the same as he thinks fit and clean of such dirt aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

Clause 8. No payment shall be made for any work estimated to cost less than rupees one thousand till after the whole of work shall have been completed and a certified of completion given. But in the case of works estimated to cost more than rupees on thousand the contractor shall on submitting a monthly bill therefore be entitled to receive pay-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

Payment on intermediate certificate to be regarded as advance.

requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed or re-erected not shall nay such payment be considered as an admission of the due performance of the contract or nay part thereof in any respect or the occurring of any claim nor shall it conclude, determine or effect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way very or effect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

- Clause 9.** The rates for several items of work estimated to cost more than Rs.1,000 agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In case where the items of work are not accepted as so completed by the Engineer-in-charge make may payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills. *to be at the discretion of the Engineer-in-charge.*
- Clause 10.** A bill shall be submitted by the contractor in each month or before the date fixed by the Engineer-in-charge shall take or cause to be taken the requisite measurement 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. It 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 engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects. *Bill to be submitted monthly*
- Clause 11.** The contractor shall submit all 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 tender 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 rates hereinafter for such work. *Bills to be on printed forms*
- Clause 12.** If the specification or estimate of the work provides for the use of any special description of material to be supplied from the store of the Department store of if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge. (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of h\this contract specified in the schedule or memorandum here to annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be sued by him for the purpose of the contract only, and value of the full quantity of the materials and stores f\so supplied shall be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract, or otherwise, or from the security deposit or the proceeds of sale there of the security deposit is held in government and shall n no account be removed from the site of the work, and shall at all time be open for inspection by the Engineer-in-Charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge and he shall have no claim for compensation on account of

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any such material supplied to him as aforesaid but remaining unused by him or any wastage in or damage to any such materials.

Clause 12.(A) - All stores of controlled materials such as cement, steel etc. supplied to the contractor by Government should be kept by the contractor under lock and key and will be accessible for inspection by the Executive Engineer or his agent at all the times.

Works to be executed in accordance with

Specification, drawing, orders, etc.

Clause 13. The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and every other respect in strict accordance with specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawing and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of the work during office hours. The contractor will be entitled to receive their sets of contract drawing and working drawings as well as one certified copy of the accepted tender along with the work order free of cost further copies of the contract drawings and workings drawings if required by him, shall be supplied at the rate of Rs..... Per set of contract drawings and Rs..... Per working drawing except where otherwise specified.

Alteration in specifications and designs not to invalidate contracts

Rates for works not entered in estimate or schedule of rate of the district.

Clause 14. The Engineer-in-charge shall have power to make any alteration in or additions 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 alteration shall not invalidate the contract, and any 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 respect on which he main work, and at the same rates as are specified in the tender for the main work and if the additional and altered work includes any class of work for which no rate is specified in this contract, then such class of works shall be carried out at the rates entered in the schedule of rates of the division or at the rates mutually agreed upon between the Engineer-in-charge and the contractor whichever are lower. 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 rates are agreed upon then the contractor shall within seven days of the date of receipt by him of the order to carry out of 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 rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry out in such manner as he may consider advisable provided always that if the contractor shall commence work or incur any expenditure in regard there to before the rates shall have been determined as lastly hereinbefore mentioned, then in such case 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 a dispute the decision of Superintending Engineer of the circle will be final.

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

Extension of time in consequence of additions or alterations.

The time limit for the completion of the work shall be extended in the proportion that increase in its cost occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Engineer-in-charge as to such proportion shall conclusive.

Clause 15. (1) If any time after the execution of the contract documents the Engineer shall for any reason what-so-ever (other than default on the part of the contractor for which the Government is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or art of the work should not be carried out at all he shall given to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety there of provided that the decision of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

No claim to any payment or compensation.

(2) Where the total suspension of work ordered as aforesaid continued for continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the unexecuted part of the work by giving a 10 day's, of such intention and requiring the Engineer to record the final measurement of the work already done and to pay final bill. Upon giving such notice the contractor shall be deemed o have been discharged from his obligations to completed the remaining unexecuted work under his contract. On receipt of such notice the Engineer shall proceed to complete the measurements and make such payment as may be final due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right o the contractor to any further compensation under the remaining provisions of this clause.

(3) Where the Engineer required to contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of work after such suspension of payment *compensation of* compensation to the extent of pecuniary loss suffered by him in respect of working *on account of* machinery remained idle on the site or on the account of his having and to pay the salary *loss on account* or wages of labour engaged by him during the said period of suspension provided always *of loss due to* that the contractor shall not be entitled to any claim in respect of any such working *delay in supply* machinery, salary or wages for the first 30 days whether consecutive or in the aggregate *of material by or* such suspension or in respect or any suspension whatsoever occasioned by *Government.* unsatisfactory work or any other default on his part. The decision of the Engineer in his regard shall be final and conclusive against the contractor.

(4) In event of-

(i) Any total stoppage of work on notice from Engineer under sub clause (1) in the behalf.

(ii) Withdrawal by the contractor from the contractual obligations complete the remaining unexecuted work under sub-clause (2) on account of continued suspension of work for a period exceeding 90 days.

OR

(iii) Curtailment in the quantity of item or items originally tendered on account of any alternation, commission on substitution in the specification, drawings, designs or instruction under clause (14) 1 where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25 percent at the rates for the item specified in the tender is more than Rs. 5000/-

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of work or (iii) notice under clause (14) 1 resulting in such curtailment to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage suspension or curtailment and require the Government to take over on payment such material at the rates determined by the Engineer, provide, however, such rates shall in no case exceed the rates at which the same was acquired by the contractor. The Government shall thereafter take over the material so offered provided the quantities offered, are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Engineer in charge.

Clause 15.(A) The contractor shall not be entitled to claim any compensation from Government for the loss suffered by him on account of de by Government in the supply of materials entered in schedule A where such delay is caused by-

No claim to compensation on account of loss due to delay in supply of material by Government.

- (i) Difficulties relating to the supply of railway wagons.
- (ii) Force majeure
- (iii) Act of God
- (iv) Act or enemies of the state or any other reasonable cause beyond the control of Government.

In the case of such delay in the supply of materials, Government shall grant such extension of time for the completion of the work as shall appear to the Executive Engineer to be reasonable in accordance with the circumstances of the case. The decision of the Executive Engineer as to the extension of time shall be accepted as final by the contractor.

Clause 16. Under no circumstance whatever shall the contractor be entitled to any compensation from Government on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of the case osuch claim occurring.

Time limit for unforeseen claims.

Clause 17. If any time before the security deposit or any part thereof is refunded to the contractor it shall appear to the Engineer-in-charge or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful 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 lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then notwithstanding the fact that

Action and compensation payable in case of bad work.

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the work, materials or articles complained of may have been inadvertently 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 and provided 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 for every day not exceeding 15 days, during which the failure so continue and in the case of any such failure the Engineer-in-charge may rectify or remove and re-execute the work or remove, and replace the materials or articles complained of as the case may be at the risk and expenses 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 as such reduced rates he may fix therefore.

*P.W.D.
Resolution No.
CAT-1087
/CR/94-Building-2
dt. 14-6-89.*

Clause 18. 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 at all other times at which reasonable notice of the intention to the Engineer-in-charge and his subordinate to visit the work shall have been given to the contractor, either himself be present to receive orders and instruction or have responsible agent duly accredited in writing should 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.

*Work to be open
to inspection.*

*Contractor or
responsible agent
to be present.*

Clause 19. The contractor shall give not less than fifteen 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 place beyond the reach of measurements and shall not cover up or place beyond the reach of measurements any work without the consent in writing of the Engineer-in-charge or his subordinate in charge of the work, 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 expense and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

*Notice to be given
before work is
covered up.*

Clause 20. If during the period of 24 months for carpet, seal coat & C. D. Work & 12 months for other items from the date of completion as certified by the engineer-in-charge pursuant to clause 7 of the contract or 36 months/years after commissioning the work, whichever is earlier in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the Executive Engineer, duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying & setting right the defects specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Executive Engineer in the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice and/or to complete the same as aforesaid as required by the said notice, the Executive Engineer get the same executed and carried out departmentally or by any other

*Contractor liable
for imperfections.*

*P.W.D. Resolution
No. CAT-1087
/CR/94-Building-2
dt. 14-6-89.*

agency at the risk cost of the contractor. The contractor shall forthwith on demand pay to the Govt. the amount of such costs,

charge and expenses sustained or incurred by the Government of which the certificate of the Executive Engineer shall be final and binding on the contractor, Such costs, charges and expenses shall be deemed to be arrears of land on the contractor failing or neglecting to pay the same on demand as a foresaid without prejudice to any other rights and remedies of the Government the same may be recovered from the contractor as arrears of land revenue. The Government shall also be entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by the Government to the contractor either in respect of the said work or from the amount of security deposited retained by Government.

Clause 21. The contractor shall supply at his own cost all material (except such special materials if any as may in accordance with the contract, be supplied from the ownstores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original, altered or substituted from, and whether included in the specification or other documents forming part of the contract or referred to in the conditions or not and which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with the carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of person with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any tie and from time to time of the work or the materials, failing which the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may be deducted form any money due to the contractor under the contract or from his security deposit or the proceeds of sale there of the or of a sufficient portion therefore .The contractor shall provide all necessary fencing and lights required to portion the public from accidents and shall also bound to bear the expand to defense of every suit, action of other legal proceeding, that may be brought by person for injury sustained owing to neglect of the above precautions, and to pay any damages and cost which may with consent of the contractor be paid for compromising any claim by any such person.

List of machinery in contractor's possession & which they propose to use on the works should be submitted along with the tender.

Clause:-21(A) The contractor shall provide suitable scaffolds and working platforms gangways and stairways and a shall comply with the following regulations in connections therewith.

- a) Suitable scaffolds shall be provided for workmen for all works the can not be safely done from a ladder or y other means.
- b) A scaffold shall not be constructed taken down or substantially altered except
 - i) Under the supervision of a competent send responsible persons: and
 - ii) as far as possible buy competent workers processing adequate experience in this kind of work
- c) All scaffolds and appliances connected there with and ladders shall.
 - i) Be of sound material
 - ii) Be of adequate strength having regard to the loads stresses 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 inconsequence of normal use.

- e) Scaffolds shall not be over-loaded-and as for as practicable the load shall be evenly distributed.

Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffold.

Scaffold shall be periodically inspected by the competent person & Engineer incharge. Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by is workmen or not, take steps to insure that it complies fully with the regulations here-in specified.

Working platform, gangways stairways shall.

- i) Be so constructed that no part there of can sag unduly or unequally.
 - ii) Be so constructed and maintained having regarded 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 construction.
- f) In case of working platform, gangways, working places and stairways at height exceeding 3 meters.
- 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 gangway shall have adequate width and.
 - iii) Every working platform, gangway, working places and stairway shall be suitably fenced.

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 excess of persons or the transport or shifting of materials be provided with suitable means to Protect the fall of persons or materials.

When Persons are employed on roof where there is a danger of falling from a height exceeding 3 meters suitable precautions shall be taken to Protect the fall of persons or materials.

Suitable precautions shall be taken to Protect persons being struck by articles which might fall from scaffold or other working places.

Safe means of access shall be proceed to all working platforms and other working places.

The contractor(s) will have to make payment to the laborers as per minimum wages Act.

Cause 21B:- The contractor shall comply with the following regulations as regards the testing application to be used by him:-

- a) Hoisting machine and rankle including their attachments, anchorages and support shall
 - i) Be If good mechanical construction, sound material and adequate strength and free from patent defect.

And

 - ii) Be kept in good repair and in good working order.
- b) Every reputed in heisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
 - c) Hoisting machine and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in posited at intervals to be prescribed by the Government.
 - d) Every chain, ring, hook shackle swivel and pulley block used in hoisting or lowering materials or as 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 the age of **18** years shall be in control of any hoisting machine, including any scaffold which, or give signals to the operator.
- g) In the case of every hoisting machine and of every chain, ring, hook swivel pulley block used in hosting or lowering or as means of suspension the safe working load shall be as curtailed by adequate means.
- h) In the case of hosting machine having a variable safe working load each safe working load and the conditions under which it is applicable shall be clearly indicated.
- i) Every hosting machine and all gear referred to in proceeding regulation shall be plainly marked with the safe working load.
- j) No part of any hosting machine or of any gear referred to in regulation (g) above shall be loaded beyond the safe working load except from the purpose of testing.
- k) Motors gearing transmissions, electric wiring and other dangerous part or hosting appliances shall e provided with such means as will reduces to minimum and the risk of the accidental descent of the loads.
- l) Hoisting appliances shall be provided with such means as will reduce to minimum and the risk of the accidental descent of the load.
- m) Adequate precaution shall be taken to reduce to a minimum the risk of any part of a suspended load.

Clause22:- The contractor shall not set fire to any standing jungle, trees brushwood or grass without a written permit from the Executive Engineer. When such permit is given and also in al cases when destroying cut or dug up trees, brushwood grass etc. by fire; the contractor shall take the necessary measure to percent such fire spreading to or otherwise damaging surrounding property. The contractor shall make his own arrangements for finking water for the labor employed by him.

Pleasure for prevention of Fire.

Clause23:- Compensation for all damages done intentionally or unintentionally by contractor's labours whether in or out site the limits of Government property including any damage caused the spreading of fire mentioned in clause 22 shall be estimated the engineer-in charge subject to the decision of the Superintending Engineer on 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 Government to contractor under this contract or otherwise.

Liability of contractor for any damage done in or outside work side.

The contractor shall Bear the expenses of defending ay action or other legal proceeding that may be brought by any persons for injury sustained by him owing to neglect of precautions to Prevent the spread of fire and he shall pay any damages and cost that may bane awardees by the court on consequence.

Clause:-24.- The employment of female labors on works in neighbor-hood of soldiers' barracks should be avoided as far as possible.

Employment of female labour.

Clause25:- No work shall be done on a Sunday without the sanction in writing of the Engineer-in-charge.

Work on Sunday.

Clause26:-The contract shall not be assigned or Sublet without the sanction in writing of the Engineer-in-charge and if the contractor shall assign or Sublet his contract, or attempt so to do or become insolvent or commence any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, Loan, perquisite reward or advantage, pecuniary or otherwise shall either directly or indirectly bat given, promised or offered by the contractor or any of his servant or agents to any public officer to person in the employee of Government 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 the contract, the

Work not to sublet.

Contract may be recanted and security.

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Engineer-in-charge may thereupon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensure as if the contract had been rescinded under clause 3 hereof and in addition the contractor shall not be entitled to recover of or be paid for any work therefore actually performed under the contract.

Clause:-27:- All 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 Government without reference to the actual loss or damages sustained, and whether any damage has not been sustained.

for subletting it without approval or for bribing a public officer or if contractor becomes insolvent.

Clause 28:- In the case of tender by partners, any change in the constitution of a firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.

Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss. Changes in the

Clause 29:- All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the circle for the time being, who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.

constitution of form to be notified.

Clause 30:- (1) Except where otherwise specified in the contract and subject to the powers delegated to him by Government under the code, rules then in force, the decision of the Superintending Engineer of the circle for the time being shall be final, conclusive, and binding on all parties to the contract upon all questions relating to the meaning of the specification, designs, drawings and instructions hereinafter mentioned and as to the quality or workmanship or materials used on the work, or as to any other question, claim, right, matter, or thing whatsoever if any way arising out of or relating to the contract designs

Direction and control of the Superintending Engineer.

drawings, specifications, estimates, instructions, orders, or these conditions or otherwise concerning the works, or the execution, or failure to execute the same whether arising during the progress of the work, or after the completion or abandonment thereof.

(2) The contractor may within thirty days of receipt by him of any order passed by the Superintending Engineer of the circle as aforesaid, appeal against it to the Chief Engineer concerned with the contract, work or project provided that.

a) The accepted value of the contract exceeds Rs. 10 Lacs (Rs. Ten Lacs)

b) Amount of claim is not less than 1.00 Lacs. (Rs. One Lacs)

3) If the contractor is not satisfied with the order passed by the Chief Engineer as aforesaid, the contractor may within thirty days of receipt by him of any such order, appeal against it to the concerned Secretary, Rural Road Development Department, Superintending Engineer/ Chief Engineer is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and decision by the standing committee shall be put up to the standing committee at Government level for suitable decision.

(Vide P.W. Circle No. CAT-1086-CR-110/Bldg. 2 Dt. 7-5-86)

Clause 31:- The contractor shall obtain from Local Market, all stores and articles of European or American manufacture which may be required for the work, or

To be obtained from the

Contractor

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any part thereof or in making up any articles required therefore or in connection there-with unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the, Engineer-in-charge will be debited to the contractor in his account at the rates shown in

the schedule, in form A attached to the contract and at cost price which for the purpose of this contract shall include the cost of carriage and other expenses, whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

Clause 32:- When the estimate on which a tender is made includes lumps sums in respect of parts of the work the contractor shall be entitled to payment in respect of the items of work involve or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of the work in question is not in the opinion of the Engineer-in-charge capable of measurement, 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 provision of this clause.

Lump sums in estimates.

Clause 33:- In the case of any class of work for which there is no such specification as is mentioned in rule 1 such work shall be carried out in accordance with the divisional specification and in the event of there being no divisional specification, then in such code the work shall be carried out in all respects in accordance with all instructions and requirements

Actions where no

Definition of work.

specifications. of the Engineer-in-charge.

Clause 34:- The expression 'works' or work where used in these conditions shall unless there be something in the subject of context repugnant to such construction, be construed to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original altered substituted or traditional.

Clause 35 :- The percentage referred to in the tender shall be deducted from/ added to the gross amount of the bill before deducting the value of an stock issued.

Clause 36 :- All quarry feed, royalties, octroi dues and ground rent for stacking materials, of any should be paid by the contractor, who will, however, be entitled to a refund of such of the charges as per permissible under rules, on obtaining a certificate from the Engineer-in-charge that the materials were required for use on Govt. work.

Contractor's percentage whether applied to net or gross amount of bill.

Clause 37 :- The contractor shall be responsible for and shall pay any compensation to his workmen payable under the workman's compensation Act 1923 (VIII of 1923) (hereinafter called the side Act) for injuries caused to the workmen. If such compensation is Act on behalf of the contractor, it shall be recoverable by Government from the contractor under sub-section (2) of the said section, such compensation shall be recovered in the manner laid down in clause I above.

Refunded of quarry fees and royalties.

Compensation

*under
workmen's
compensation
etc.*

Clause 37(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 Government the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of Govt. from any amount due or that may become due to the contractor.

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Clause 37 (B) :- The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the persons employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with following regulation in connection there with.

- a) The workers shall be required to use the equipment so provided by the contractor and the 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 there is a rash or drawing all necessary equipment shall be provided and kept ready for use and all necessary steps shall taken for the prompt rescue of any person in danger.
- c) Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Clause 37 (C):- The contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961) the rules made there under and the orders that may be issued from time to time under the act the side rules and on his failure or neglect to do so he shall be subject to all the liabilities and penalties and penalties provided by the said Act and said rules.

Clause 38 (1):-Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rate shall be permitted in respect of any of the items so long as, subject to any special provision contained in the specifications prescribing a different percentage of permissible variation in the quantity of the item does not exceed the tender quantity by more than 30 percent and so long as the value of the excess quantity beyond this limit at the rate of the item specified in the tender is not more than Rs.5000/-

2) The contractor shall if ordered in writing by the Engineer to do so, also carry out any quantities in excess of the limit mentioned above in sub clause (i) hereof on the same conditions as and in accordance with their specifications in the tender and at the rates (i) derived from the rates entered in the current schedule of rates and in the absence of such rates (ii) at the rate prevailing in the market. The said rates being increased or decreased as the case may be by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based upon the current schedule of rates applicable for the year in which the tender were invited (for the purpose of operation of this clause this cost shall be worked out from the CSR prevailing at the time of acceptance of the tender for ----- Rs. -----).

3) Claims arising out of reduction in the tendered quantity of any item beyond 25% will be governed by the provision of clause 15 only when the amount of such reduction beyond 25 percent at the rate of the item specified in the tender is more than Rs.5000/- (The Clause is not applicable to extra items)

Claim of quantities entered in the tender or estimates.

Clause 39:-The contractor shall employ any famine, convict or other labor of a particular kind or class if ordered in writing to do so by the Engineer in-charge.

Employment of famine labour etc.

Clause 40:- No Compassion shall be allowed for any delay caused in the starting of the work on account of accusation of land or on the case of clearances works on account of any delay in accounting t sanction of estimates.

Clause 41:- No compensation shall be allowed for any delay in the execution of the work on account of water, standing in borrows pits or compartments. The rates are inclusive for hard of cracked soil. Excavation in mud, soil, water standing in borrow pits and no claim for an extra rate shall be entertained unless of otherwise expressly specified.

Clause 42:- *Entering upon of commencing any portion of work.* The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer-in-charge or of the subordinate in charge of the work. Failing such authority the contractor shall have no claim to claim to ask for measurements of or payments for work.

Clause 43:- i) No contractor shall employ any person who is under the age of 18 years.

Minimum age of persons employed the employment of donkeys and for other animals and the payment of fair wages.

ii) No contractor shall employ /any donkeys or other animals with breeching of string or thin rope. The breeching must be at least three inches wide and should be of tape

(Newer).

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 Government for any delay caused in the completion of the work by cash removal.

v) The contractor shall pay fair and reasonable wages to the workmen 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 & reasonable, the dispute shall be referred without delay to the Executive Engineer who shall decide the same. The decision of the Executive Engineer 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 Government at the sanctioned tender rates.

vi) Contractor shall provide drinking water facilities to the workers similar amenities shall be provide the workers engaged on large work in urban areas.

vii) Contractor to take precaution against accidents which takes place on account labuors using loose garments while working near machinery.

Clause 44:- Payment of contractors shall be made by Cheque drawn on any treasury within the decision convenient to them proceeds the amount exceeds Rs. 10 Amounts not exceeding Rs. 10 will be paid in cash.

Method of payment.

Acceptance of conditions

Clause 45:- Any contractor who does not accept these conditions shall not be allowed to tender for works.

compulsory before tendering the work.

Employment of scarcity labour.

Clause 46:- If Government declares a states of scarcity or famine t exist in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labor, any person certified to him by the Executive Engineer or by any person to whom the Executive Engineer may have delegated this duty in writing to be in need of relief and shall be bound t pay to such person wages not below the minimum which government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Executive Engineer in charge whose decision shall be final & binding on the contractor.

Clause 47:- The price quoted by the contractors shall not in any case exceed the control price, if any fixed by Govt. or reasonable price which it is permissible for him to him to charge a private purchaser for the same class and description, the controlled price of price permissible under Hoarding and profiting Ordinances, 1948 as amended from time to

time if the price quoted exceeds the controlled price or the permissible under Hoarding and Profiteering Prevention Ordinance, the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices.

The purchaser at his discretion will in such case exercise the right of revising the price at any stage so to conform with the controlled price on the permissible under the hoarding and profiteering presentation ordinance, this discretion will be exercised without prejudice to any other action that may be taken against the contractor.

Clause 48 :- The tendered rates shall be inclusive of all taxes, rates and cases and shall also be inclusive of the tax livable in respect of works contract under the precision of the Maharashtra sales tax on transfer of property in good involved in the execution of works contract Act, 1985 (Maharashtra Act XIX of 1985).

Maharashtra Act XIX of 1985, clause regarding turnover tax vide P.W.D. circle No.CAT/1086/C

Clause 49:- In case of materials that may remain surplus with the contractor from those issued for the work contracted from the date of ascertainment of the materials surplus will be taken as the date of sale for the purpose of sale tax will be recovered on such sale.

R-330 building-2 Dt. 10th June 1987.

Clause 50:- The contractor shall employ at least 80 percent of the total number of unskilled laborers be to employed by him on the said work form out of the persons ordinarily residing in the district in which site of the said work is located.
not available, the contractor shall in the first instance employ such number of persons as is available and thereafter may with precious permission in writing of the Executive Engineer-in charge- of the said work, obtain the rest of the requirement of unskilled labour from outside district.

Clause 50A:- The contractor shall employ the unskilled labour to be employed by him on the work only from locally available labour and shall give preference to those persons enrolled under **Maharashtra Government Employment and Self Employment Department's Scheme.**
Provided, however that if the required unskilled labour are not available locally, the contractor shall in the first instance employ such number of person as is available and thereafter may with previous permission, in writing of the Executive Engineer-in-Charge of the said work, obtain the rest of requirement of unskilled labour from outside the above scheme.

Clause 51:- Wages to be paid to the skilled and unskilled laborers engaged by the contractor.

The contractor shall pay the labors skilled and unskilled wages according to the wages prescribed by the minimum wages Act of 1948 applicable to the area in which the work of the contract is located.

The contractor shall comply with the provision of the apprentices Act 1961 and the rules and orders issued the under from time if he fails to do so his failure will be a breach of the contract and the superintending Engineer, may in his discretion, cancel the contract the contractor shall also be liable for any pecuniary leanest arising on account of any violation by him of the provision of Act. The contractor shall pay the labours skilled and unskilled according to wages prescribed by minimum wages Act applicable to the area in which the work lies.

Clause 52:- All amounts whatsoever which the contractor is liable to pay to the Government in connection with the execution of the work including the amount payable in respect of (i) materials and or stores supplied/ issued hereunder by the Government to the contractor (ii) here charges in respect of heavy plant, machinery and equipment given on hire by the Government to the contractor for execution by him of the work and / or on which advanced of the land revenue and the Government may without prejudice to any other rights and remedies of the Government recover the same from the contractor as arrears of revenue.

Clause 53:- The contractor shall duly comply with all the provisions of the contract labour (Regulation and Abolition) Act, 1970 (37of 1970) and the Maharashtra contract labour Regulation and Abolition rules 1971 as amended from time to time and all other relevant statutes and statutory provisions concerning payment of wages particularly to workman employed by the contractor and working on the site of the work. In particular the contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra contract labor (Regulation and Abolition) Rules 1971 If the contractor fails or neglects to pay wages at the said rates or makes short payments and the Government makes such payment of wages in full or part thereof less paid by the contractor as the case may be the amount so paid by the Government to such workers shall be deemed to be arrears of land revenue and the Government shall be entitled to recover the same as such from the contractor or deduct same from the amount payable by the Government to the contractor hereunder of from the amount payable by the Government to the contractor hereunder or from any other amounts payable to him by the Government.

*P.W. Department
No. CAT/1284
(120)/building-2
dated 14-08-85.*

Clause 54:- The contractor shall engage apprentices such as bricks layer, carpenters, wiremen, plumber as well as black-smith as recommended by the state Apprenticeship deviser Director of Technical Education, Dhobi Talav, Bombay-1 on the construction work. Government of Maharashtra Education Department No. TSA-5170/T-56689 date7-7-72

Clause 55:-Government of Maharashtra P.W.D.(Resolution N0. CAT1086/CR-243/K/Building-2 Bombay-32 date 1-9-87)

- A) The anti-malaria and other health measures shall be as directed by the joint director (Malaria and Filarial) of Health Services, Pune.
- B) Contractor shall see that mosquitozenic conditions are not created so as to keep vector population to minimum level.
- C) Contractor shall carry out anti-malaria measures in the are as per guidelines prescribed under national malaria Eradication Programmed and as directed by the joint director (M&F) of Health services, Pune.
- D) In case of default in carrying out prescribed anti-malaria measures resulting increase in malaria incidence, contractor shall be liable to pay Government on anti-malaria measures to control the situation in addition to fine.
- E) Relation with public authorities: the contractor shall make sufficient arrangements for draining away the salvage water as well as water coming from the bathing and washing places and shall dispose of this water in such a way as not to cause any musicale. He shall also keep the premise clean by employing sufficient of sweepers. The contractor shall comply with all rules, regulations, bye laws and direction given from time to time by any local or public authority connection with this work and shall pay fees or charges which are livable on him without any extra cost to Government.

SCHEDULE "A"

Schedule showing (approximately) the materials to be supplied from the **Works Division washim** stores for work contract to be executed and preliminary and ancillary works and the rates at which they are to be charge for.

Particulars	Quantity	Rates at which the material will be charged to the contractor				Place of Delivery
		Unit	In Figure		In Words	
			Rs.	Ps.		
			----- Nil -----			

Contractor

No. of Corrections

Sarpanch / Sachiv

CHAPTER 8
ADDITIONAL GENERAL CONDITIONS AND SPECIFICATION

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Contractor

No. of Corrections

Sarpanch / Sachiv

1. ADDITIONAL GENERAL CONDITIONS AND SPECIFICATIONS

Shall apply as additional specifications and conditions, unless otherwise already provided for contradictorily elsewhere in this contract.

2. INDEMNITY:-

The contractor shall indemnify the Government against all actions, suits claims and demands brought or made against him in respect of anything done or committed to be done by the Contractor in execution of or in connection with the work of this contract and against any loss or damage to the Government in consequence of any action or suit being brought against the Contractor for anything done or committed to be done in the execution of the work of this contract.

3. DEFINITIONS:-

Unless excluded by or repugnant to the context.

- a) The expression "Government" as used in the tender papers shall mean the Public works irrigation and Housing Department of the Government of Maharashtra.
- b) The expression "Chief Engineer" as used anywhere in the tender papers shall mean an Chief Engineer or the Government of Maharashtra who is designated as such.
- c) The expression "Superintending Engineer-in-charge" as used in the tender papers shall mean officer of Superintending Engineer's rank (by whatever designation he may be known) under whose control the work lies for the time being.
- d) The expression "Superintending Engineer-in-charge" as used in the tender papers shall mean the executive Engineer-in-charge of the work for time being.
- e) The expression "Contract" as used in the tender papers shall mean the successful tendered whose tender has tender has been accepted, and who has been authorized to proceed with the work.
- f) The expression "contract" as used in tender papers shall mean the deed to contract together with its original accompaniment and those latter incorporated in it by mutual consent.
- g) The expression "Plant" as used in the tender papers shall mean every temporary and necessary of considered necessary by the Engineer to execute, construct, complete and maintain the works and used in altered, modified, substituted & additional work ordered in time and the manner herein provided and all temporary materials and special and other articles of appliances of every sort, kind and description whatsoever intended or used thereof.
- h) "Drawings" shall mean the drawings referred to in the specifications and any modifications of such drawings approved in writing by Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.

- i) "Engineer's representative" shall mean as assistant of the Engineer notified in writing to the contractor by the Engineer.
- j) 'Provisional sum' of Provisional lump sum shall mean lump sum including by Government in tender documents and shall represent the estimated value of work for which details are not available at the time of issue of tender
- k) 'Provisional items shall mean items for which approximate quantities have been included in. the tender documents
- l) The 'site' shall mean the lands and / or other places, on under-in or through which the work is to be executed under the contract including any other lands or places, which any be allotted by Government or used for the purpose of contract
- m) The 'Work' shall mean the works to be executed in accordance with the Contract or part (s) there of as the case may be and shall include all extra or additional, altered or submitted works as required for performance of the Contract
- n) The "Contract sum" shall mean the sum for which the tender is accepted
- o) The accepting "Authority" shall mean the sum for which the tender is accepted.
- p) The "Day" shall mean a day 24 hours from midnight to midnight irrespective of the number of hours worked in any-day in the weeks
- q) "Temporary work" shall mean all temporary works of every kind required in or about the execution, completion, or maintenance of the works.
- r) "Urgent works" shall mean any measure which, in the opinion of the Engineer-in-charge become necessary during the progress of the works to the works to obviate any risk or accident of failure or which become necessary for security of the work or the persons working, thereon.

Where the context so requires, words importing the singular only also include the plural and viewer

Heading and marginal notes, if any, to the general conditions shall not be deemed to form part there of or taken into consideration in the interpretation or construction there of the contract.

Wherever there is mention of "Schedule of rates" of the Division or simply D.S.R. in this tender it will be taken to mean as the Schedule of rate of Division in whose jurisdiction the work lies."

4. ERRORS OMISSION AND DISCREPANCIES:-

- a) In case of errors, omissions and for disagreement between written and scaled dimensions on the drawing or between drawing and specification etc. the following order of preference shall apply.
 - i) Between actual scaled and written dimensions or descriptions on a drawing the latter shall be adopted.
 - ii) Between the written or shown description or dimension in the drawing and corresponding one in the specifications, the latter shall apply.
 - iii) Between the quantities shown in schedule of quantities and those arrived at from the drawings the latter shall be preferred.

- iv) Between the written description of the item in the schedule of quantities and the detailed description in the specifications of the same items, the later shall be adopted.
- b) In case of discrepancy between percentage rate quoted in figures and words, the lower of the two will be considered for acceptance of tender.
- c) In all case of omissions and or doubts or discrepancies in the dimensions or description of any item of specification, a reference shall be made to the Executive Engineer
- d) The special provision in detailed specification and wording of any item shall again precedence over corresponding contradictory provision (if any) in the Standard Specifications of Public Works Department Hand Book where reference to such specification is given without reproducing the details in contract.

5. AGENT AND WORK ORDER BOOK:-

The contractor shall himself manage the work or engage an authorized all time agent on the work capable of managing and guiding the work and understanding the specifications and contract conditions. A qualified and experience. Engineer-in charge considers this is essential for the work & so directs contractors. He will take orders as will be given by the Executive Engineer or his representative and shall be responsible for carrying them out. This agent shall not be his representative and shall be responsible for carrying them out. This agent shall not be changed without prior intimation to the Executive Engineer and his representative on the work site the contractor shall supply to the Engineer the details of all supervisory and other staff employed by the Contractor and notify changes when made and satisfy the Engineer regarding the quantity and sufficiency of the staff, thus employed. The Engineer will have the unquestionable right to ask for changes in the quality and numbers of Contractor's supervisory staff and to order removal from work of any of such staff. The Contractor shall comply with such staff and to order removal from work of any of such staff. The Contractor shall comply with such orders and effect replacements to the satisfaction of the Engineer.

6. SETTING OUT:-

i) ROAD WORKS:-

6.1 The contractor shall establish working bench marks in the area soon after taking possession of the site. The reference Bench mark for the area shall be as indicated in the Contract Documents. The working bench marks/shall be at the rate of four per KM and also at or near all drainage structures, over bridge and underpasses. The working bench marks / levels should be got approved from the Engineer Checks must be made on these bench marks every month and adjustments if any got agreed with the Engineer and recorded. An up to date record of all bench marks including approved adjustment, if any shall be maintained by the contractor and also a copy supplied to the Engineer for his record.

6.2 The lines and levels of formation, side slopes, drainage, carriageways and shoulders shall be carefully set out and frequently checked, care being taken to ensure that correct gradients and cross sections are everywhere obtained.

6.3 In order to facilitate the setting out of the works, the centre line of the carriageway or highway must be accurately established by the contractor and approved by the Engineer. It must then be accurately referenced, in a manner satisfactory to the Engineer, every 50m intervals in plain and rolling terrain and 20m intervals in hilly terrain and in all curve points as directed by the Engineer, with marker pegs and change boards set in or near the fence-line and a schedule of reference dimension shall be prepared and supplied by the contractor to the Engineer. These markers shall be maintained until the work reach finished formation level and are accepted by the Engineer.

6.4 On construction reaching the formation level stage the centre line shall again be set out by the contractor and when approved by the Engineer shall be accurately referenced in a manner satisfactory to the Engineer by marker by marker pegs set at the outer limits of the formation.

6.5 No reference pegs or marks shall be moved or withdrawn without the approval of the Engineer and no earthwork or structural work shall be commenced until the centre line has been referenced.

6.6 The contractor will be the sole responsible party for safeguarding all survey movements, bench marks, beacons etc. The Engineer will provide the contractor with data necessary for the setting out of the centre line. All dimensions and levels shown on the drawings or mentioned in documents forming part of issued under the contract shall be verified by the contractor on the site and he shall immediately inform the Engineer of any apparent errors of discrepancies in such dimensions or levels. The contractor shall after or in connection with the setting out of the centre line, survey the terrain along the road and shall submit to Engineer for his approval a profile along the road centerline and cross sections at intervals as required by the Engineer.

6.7 After obtaining approval of the Engineer, work on earthwork can commence and the profile and cross sections shall form the basis for measurement and payment. The contractor is responsible for checking that all the basic traverse points are in place at the commencement of the contract and if any are missing, or appear to have been disturbed, the contractor shall make arrangements to re-establish these points.

A' survivor Files* containing the necessary data will be made available for this purpose, if in the opinion of the Engineer, design modifications of the centre line or grade are advisable, the Engineer will issue detailed instructions to the contractor and the contractor and the contractor shall perform the modifications in the field, as required and modify the ground levels on the cross sections accordingly as many times as required. There will be no separate payment for any survey work performed by the contractor. The cost of these services shall be considered as being included in the cost of the items of work in the bill of Quantities.

6.8 The work of setting out shall be deemed to be part of general works preparatory to the execution of work and no separate payment shall be made for the same.

ii) SETTING OUT FOR (BRIDGE WORKS) :-

Immediately on receipt of the work order, the contractor shall at his own expense clean the site and take up a provisional and final setting out and lining out of the work under the supervision of his responsible representative and shall provide necessary material, labour, tools, instruments etc. required for the same.

One tentative abutment location will be indicated by Engineer-in-charge and the center line of the bridge shall be defined by him. The contractor will then have to fix up the location of the adjusted. Once the final location of abutments is so finalized, it will be the contractor's responsibility to line out and locate the remaining foundations.

The contractor shall be responsible for true and proper setting out of the works and for the correctness of the positions, level dimensions and arrangements of all parts of works and for providing all necessary instruments appliances and labours in connection there with at his own cost. Officers may assist the contractor in proper setting out. Government instruments may be allowed to be used for setting out of work, for any errors arise in regard to levels or dimensions or alignment of any part of the work, rectification thereof on being required to do so, will be carried out by the contractor at his cost, unless such errors are based on incorrect data, supplied in writing by the Engineer or his authorized representative in which case the expense of the rectification shall be refunded by Government.

The checking of any setting out or checking of levels by the Engineer or his authorized representative shall not in any way relieve the contractor of his responsibility for the correctness thereof. The contractor shall carefully protect and preserve all bench marks site rails, pegs and other things used in setting out of works.

RESPONSIBILITIES FOR LEVEL AND ALIGNMENT:-

The contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment the levels and correctness of every part of the work and shall rectify effectually any errors or imperfections there in, such rectifications shall be carried out by the contractor at his own cost, when instructions are issued to the effect by Engineer-in-charge.

7. LEVELING INSTRUMENTS:-

If measurements of items of the work are based on volumetric measurement calculated from levels taken before and after construction of the item, a large number of leveling staves, tapes etc. in required numbers may cause delay in measurements and the work. The contractor will have therefore to keep sufficient number of these readily available at site.

8. AUTHORITIES OF THE-ENGINEER IN CHARGE'S REPRESENTATIVE:-

The duties of the representative of the Engineer-in-charge are to watch and supervise the work and to test and examine any material to be used or workmanship employed in connection with the works.

The Engineer-in-charge may from time to time, in Writing delegate to his representative any powers and authorities vested in the Engineer-in-charge and shall furnish to the contractor a copy of all such delegations of powers and authorities. Any written instruction of approval given by the representative of the Engineer-in-charge to the contractor within the terms of such delegations (but not otherwise) shall bind on the contractor and the department as though it had been given by the Engineer-in-charge, provide always as follow:

Failure of the representative of the Engineer-in-charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-charge thereafter to disapprove such work or materials and so order the putting down, removal or breaking up thereof.

9. CO-ORDINATION:-

When several agencies for different sub-works of the project are to work simultaneously on the project site, there must be full co-ordination and co-operation between different contractors to ensure timely completion of the whole Project smoothly. The scheduled dates for completion specified in each contract shall therefore, be strictly adhered to Each contractor any make his independent arrangement for water, power, housing etc. if they so desire On the other hand the contractors are at liberty to mutual agreement in this behalf and make joint arrangements with the approval of the Engineer, No single Contractor shall take or cause to be taken any steps or action that may cause, disruptions discontent, or disturbance of work, Labour or arrangement etc. of other Contractor in the Project localities. Any action by any contractor which the Engineer in his unquestioned discretion may consider as infringement of the above code, would the Engineer in his unquestioned discretion may consider as infringement of the above code, would be considered as a breach of the Conditions and shall be dealt with as such.

In case of any dispute, disagreement between the contractors the Engineer's decision regarding the co-ordination, co-operation and facilities to be provided by any the contractors shall be final and binding on the contractors concerned and such a decision or decisions shall not vitiate any contract nor abortive the contractor (s) of his / their obligation under the contract not consider for the grant for any claim or compensation.

10. QUARRIES :-

10.1 No. Government quarries are available / with this department. The contractor(s) shall have to arrange the same he / themselves.

10.2 The quarrying operations shall be carried out by the Contractor with proper equipment such as compressors, jack-hammers drill bits, explosives etc. and sufficient number of workmen shall be employed so as to get required out turn.

10.3 The contractor shall carry out the works in the quarries in conformity with all the rules and regulations already laid down or that may be laid down from time to time by Govt. Any cost incurred by Governments due to non compliance of any rules or regulations or due to damages by the Contractor shall be the responsibility of the Contractor.

The Engineer-in-charge or his representative shall be give full facilities by the Contractor for inspection at all times of the working of the quarry records, maintained the stocks of the explosives and detonators etc., so as to enable him to check that the working records and storage are all in accordance with the relevant rules. The Engineer-in-charge or his representative shall at any time be allowed to inspect the work buildings and equipment at the quarters.

10.4 The Contractor shall maintain at his own cost the books, registers etc. required to be maintain under the relevant rules and regulations and as directed by the Engineer-in-charge These books shall be open for inspection at all times by the Engineer-in-charge or his representative and the Contractor shall furnish the copies or extracts or books or registers as and when required.

10.5 All quarrying operations shall be carried out by the contractor in organized and expeditions manner, systematically and with proper planning. The Contractor shall engage linked blaster and adopt electric blasting and/or any other approved method which would ensure complete safely to all the men engaged in the quarry and its surrounding. The Contractor shall himself provide suitable magazines and arrange to procure and store explosives etc. as required under the rules at his own cost. The designs and the location of the magazine shall be got approved in advance from the Chief inspector of Explosives and the rules and regulations in this connection as laid down by the Chief Inspector of Explosive from time to time shall be strictly adhered to by the Contractor. It is generally experienced that it takes time to obtain the necessary license for blasting and license for storage of materials from the concerned authorities the contractor must therefore take timely advance action for procuring all such licenser so that the work progress may not be hampered.

10.6 The approach to the quarrying place from the existing public roads shall have to be arranged by the Contractor at his own cost and the approaches shall be maintained by the Contractor at his own cost till the work is over.

10.7 The quarrying operations shall be carried out by the Contractor to the entire satisfaction of the Engineer-in-charge and the development of the quarry shall be made efficient so as to avoid stage of stones. Only such stones of the required quality shall be used on the work. Any stone which is in the opinion of the Engineer-in-charge, not in accordance with the specification or of required quality will be Rejected at any time at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected materials shall be removed to the place shown at the Contractor's cost.

10.8 Since all stones quarried from Government quarry (if made available) by the Contractor including the excavated over burden are the property of the Govt. No stones or earth shall be supplied by the Contractor to any other agencies or works are allowed to be taken away for any other works. All such surplus

quarried materials not required for work under this contract shall be the property of the Govt. and shall be handed at the spots indicated by the Engineer-in-charge. The Contractor will be entitled to the refund or royalty if any paid by him for such quantity handed over to Govt. for which necessary certificate will be issued by Executive Engineer incharge as per usual procedure. If however, the Government does not require such surplus material, the contractor may be allowed to dispose off or use such materials elsewhere with prior written permission of the Engineer-in-charge. Leaving off a quarry face or opening of a new quarry face shall be done only on the approval of the Engineer-in-charge.

10.9 Quarrying permission will have to be directly obtained by the Contractor, from the Collector of the District concerned for which purpose the department will render necessary assistance. All quarry fees royalty charges, octroi duties, ground rent for stacking materials etc. if any to be paid, shall be paid directly by the Contractor as per rules in force. The Contractor will however be entitled to a refund of part of such charges as are admissible. Under rules as maintained elsewhere in this contract, after obtaining a certificate from the Engineer-in-charge that material where required for use on Government works.

10.10 The Contractor will be permitted to erect at his own risk and cost at the quarry site if suitable vacant space in government area is available for the purpose, his own structures for stores, offices, etc. at places approved by the Engineer-in-charge. On completion of the work the contractor shall remove all the structure erected by him and restore the site to its original condition.

10.11 The contractor shall not use any land in the quarry either for cultivation or for any other purpose except, that required for breaking or stacking or transporting stones.

11. TREASURE-TROVE :-

In the event of discovery by the contractor or his employees, the during progress of the work of any treasure, 'fossils, minerals' or any other articles of value or interest, the contractor shall give immediate intimation thereof to the Engineer incharge and forthwith hand over to the Engineer incharge such treasure or things which shall be the property of Government.

12. EXPLOSIVE :-

The contractor shall at his own expense construct and maintain proper magazines if such are required for the storage of explosives for use in connection with the work and such magazine being situated, constructed and maintained in accordance with the Government Rules applicable in the behalf. The contractor shall at his own expenses obtain such license of licenses may be necessary for storing and using explosives. Notwithstanding that the location etc. or storage of explosives are approved by the Engineer, the Government, shall not be incurring any responsibility whatever in connection with storage and use of explosives on the site or any accident or occurrence whatsoever in connection, there with, all operations in or for which explosive are employed being at the risk of the contractor and upon his sole responsibility and the contractor hereby gives to Government an absolute indemnity in respect thereof.

13. DAMAGE BY FLOODS OR ACCIDENTS :-

The contractor shall take all precaution against damage by floods or like or from accident etc. No compensation will be allowed to the contractor shall be liable to make good at his cost any plant or material belonging to the Government lost or damaged by flood or from any other case which is in his charge.

14. POLICE PROTECTION :-

For the Special Protection of camp and of the Contractor work, the Dep't. Will help the contractor as far as possible to arrange for such protection with concerned authorities, if so required by the Contractor in writing. The full cost of such protection shall be borne by the contractor.

15. TRAFFIC REGULATION FOR ROAD WORKS :-

15.1 Unless separately provided for in the contract. The Contractor shall have to make all necessary arrangement for regulating traffic, day & night during the period of construction to the entire satisfaction of the Engineer. This includes the construction and maintenance to diversions if necessary. The contractor shall have to provide necessary caution boards, barricades, flags, lights and watchmen etc. so as to comply with the latest Motor Vehicles rules and regulation and for traffic safely and he shall be responsible for all claims from accidents which may arise due to his negligence whether in, regulating the traffic or in stacking materials on roads, or due to any other reasons.

15.2 The Contractor shall at all times carry out the work on the road in the manner creating least in interference to the flow of traffic, while consistence with the satisfactory execution of the same, for all works involving improvements to the existing road, the contractor shall, in accordance with the directives of the Engineer-in-charge, provide and maintain, during the execution of work a passage for traffic, either along or part of the existing carriageway under improvement or along a temporary diversion constructed close to the road.

15.3 TRAFFIC REGULATION FOR BRIDGES AND C.D. WORKS :-

It is to clearly understood that whatever work carried out by the Contractor for construction of diversion road including earthwork, W.B.M. bituminous surface dressing R.C.C. pipe drains etc. will be paid for only once if due to flow of traffic, due to floods or do to any other cause, this diversion road and for the R.C.C. drain gets damaged it shall be repaired and maintained by the contractor in good condition till completion of the whole work at his own expenses.

16. SUPERVISION AND INSPECTION OF WORKS AND QUALITY CONTROL :-

16.1 SUPERVISION :-

The contractor shall either himself supervise the execution of the works or shall appoint the competent agent approved by the Engineer-in-charge to act on his behalf. If in the opinion of the Engineer-in-charge, the contractor has himself no sufficient knowledge and experience of receiving instruction or cannot give his full attention to the works, the contractor shall at his own expenses employ as his accredited agent a qualified Engineer approved by the Engineer-in-charge orders given to the contractor's agent shall be considered to have the force as if

there had been given to the contractor himself, if the contractor fails to appoint suitable agent as directed by Engineer-in-charge, the Engineer-in-charge shall have full power to suspend the execution of the work until such date a suitable agent is appointed and the contractor shall be responsible for the delay so caused to the works and the contractor shall be entitled for any compensation on this behalf.

16.2 INSPECTION :-

The contractor shall inform the Engineer-in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without effecting the further progress of the work. The work shall not be considered to have been completed in accordance with the terms of the contract until the Engineer-in-charge shall have certified in writing to the effect / approval of materials or workmanship or approval of part of the work during the progress of execution shall not bind the Engineer-in-charge or in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion. Until such alteration and modification or reconstruction have been effected to his satisfaction.

The contractor shall provide at his cost necessary ladders and such arrangements as to provide necessary facilities and assistance for proper inspection of all parts of the work at his own cost.

17. INITIAL MEASUREMENT FOR RECORD :-

Where, for proper measurement of the work. It is necessary to have an initial set of levels or other measurements taken, the same as recorded in the authorized field book or measurement book of Government by the Engineer or his authorized representative will be signed by the contractor who will be entitled to have a true copy of the same made at his cost. Any failure on the part of the contractor to get such levels etc. recorded before starting the work will render him liable to accept the decision of the Engineer incharge as to the basis of taking measurement. Difficult or impossible without first getting the same jointly measured by himself and the authorized representative of the Executive Engineer incharge. The record of such measurements on the Government side will be signed by the contractor and he will be entitled to have a true copy of the same made at his cost.

18. SAMPLES AND TESTING OF MATERIAL :-

i) All materials to be issued on work shall be got approved in advance from the Engineer-in-charge and shall pass the test and / or analysis required by him which will be :-

- a) As specified in the specification for the items concerned and / or
- b) I.S.I. Specifications (whichever and wherever applicable) or
- c) Such recognized specifications acceptable to Engineer-in-charge as equivalent there to or in absence of such authorized specifications.
- d) Such requirement test and / or analysis as may be specified by the Engineer-in-charge in order of precedence given above.

ii) The contractor shall at his risk and cost make all arrangements & / or shall provide for all such facilities as the Engineer-in-charge may require for collecting preparing required number of samples for tests or for analysis at such

time & to such place or places as may be directed by the Engineer and bear all charges & cost of testing. Such samples shall also be deposited with the Engineer-in-charge.

iv) The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work of due to any corrective measures required to be taken on account of and as a result of testing of the materials.

v) The contractor or his authorized representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However the results of all the tests carried out in the departmental laboratory in the presence or absence of the contractor or his authorized representative will be binding on the contractor.

vi) The contractor shall at his own set up laboratory to carry out the routine tests of materials which are to be used on the work. The test will have to be carried out either in his field laboratory or in an approved laboratory. In case tests are carried out in field laboratory, at least 50% tests should be carried out in nearest quality control laboratory of the Department.

vii) In case of materials procured by the contractor, testing as required by the codes and specifications shall be arranged by him at his own cost. Testing shall be done in the presence of authorized representative of the Engineer-in-charge at the nearest approved laboratory. If additional testing other than as required by specification is ordered, the testing charges, shall be borne by the Department, if the test results are satisfactory and by the contractor if the same are not satisfactory.

viii) In case of materials supplied by the Government, if the contractor demands certain testing, the charges there of shall be paid by the contractor if the testing results are satisfactory and by the department if the same are not satisfactory.

19) CHANGES OF CEMENT CONTENT ETC. :-

The tendered rates for any item, involving the use of cement, shall apply to the quantity of cement specified for the mix for the item in the specification. If for any reasons except those required for compensating the deficiencies, in the components, the cement content and properties are altered by the Engineer (Engineer-in-charge) at any time or from time to time the tendered rates for that properties item and quantity or quantities, shall be duly enhanced or reduced only to account for the addition or reduction in cost of the cement content from that laid down in the specification at the rates specified in the schedule 'A' of the contract price 10% to cover all other incidental charges whatsoever likewise if any additives compounds water proofing materials etc. are ordered by Engineer to be added to the mortar or concrete, no extra rate shall be payable for this change which shall be carried out as per directions of the Engineer-in-charge.

20.MEDICAL AND SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR:-

a) The contractor shall provide an adequate supply of portable water for the use of labours on work and in camps.

- b) The contractor shall construct trench or semi permanent latrines for the use of the laborers, Separate latrines shall be provided for men and women.
- c) The contractor shall built sufficient number of huts on a suitable plot of land for use of the Labourers according to the following specifications.
 1. Huts of Bamboos and grass may be constructed
 2. A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with trees, shall be chosen wherever it is available. The neighborhood of tank, jungle, grass or woods should be particularly 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 ten yards 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 space at the rate of 30 Sq Ft. 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 his own land and if he wants Government land, he should apply for it and pay assessment for it, if made available by Government.
 6. The contractor shall construct a sufficient number of bathing places. Washing places should also be provided for the purpose of washing clothes.
 7. The contractor shall make sufficient arrangements for draining away the surface and sewage water as well as water from the bathing and washing places and shall dispose off this waste water in such way as not to cause any nuisance.
- d) The contractor shall engage a Medical Officer with a traveling dispensary for a camp containing 5. Or more persons if there is no Govt. or other private dispensary situated within 8 kilometers from the camp. In case of emergency the contractor shall arrange at his cost for transport for quick medical help to his sick worker.
- e) The contractor shall provide the necessary staff for effecting a satisfactory drainage system & cleanliness of the camp to the satisfaction of the Engineer. At least one sweeper per 200 persons should be engaged.
- f) The assistant Director of Public Health shall be consulted before opening a labour camp and his instruction on matters such as water supply, sanitary conveniences, the camp site accommodation and food supply shall be followed by the contractor,
- g) The contractors shall make arrangements for all anti-malaria – measures to be provided for the Labour employed on the work. The anti-malaria measure shall be provided as directed by the Assistant Director of Public Health.

21. SAFELY CODE :-

Suitable Scaffolds shall be provided for workmen for all works that cannot safely be done from the ground from solid construction except such short period work as can be done safely from ladders. When ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder shall be given an inclination not steeper than 1 to 4 (1 horizontal and 4 vertical).

Scaffolding of staging more than 3.25m above the ground of floor, swing or suspended from an overhead support or erected with stationary supports, shall have a guard rail properly attached bolted, braced and otherwise assured at least 1m high above the floor a platform of such scaffolding or staging and extending along the entire length of the outside and ends there of with only such openings as may be necessary the delivery of materials, such scaffolding or staging so fastened as to prevent it from swaying from the building or structure

Working platform, gangways, and stairways shall be so constructed that they do not sag unduly or is more than 3.25m above ground level or floor level. If shall be closely boarded, have adequate width and suitable fenced as described in 2 above.

Safe means of access shall be provided to all working platform and other working places Every ladder shall be securely fixed. No portable single ladder shall be over 9m in length, width between side rails in a rung ladder shall in no case be less than 30cms for ladders up to and including 3m length for longer ladders this width shall be increased at least 6 mm for each additional 30 Cms. of length. Uniform step spacing shall not exceed 30 Cms.

Adequate precaution shall be taken to prevent danger from electrical equipments. No materials on any of the site shall be stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provided all necessary fencing and lights to protect public from accidents and shall be bound to bear expenses of defense or every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precaution and to pay 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, to be paid to compromise any claim by any such person.

EXCAVATION AND TRENCHING :-

All trenches, 1.5 meters or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof, Ladder shall be extended from bottom of trench to at least 1 meter above surface of the ground, sides of a trench which is 1.5 meters or more in depth shall be stepped back to give suitable slope, or security held by timber branching. So as to avoid the danger of sides collapsing Excavated materials shall not be placed with 1.3 meters of edge of trench or half of depth or trench whichever is more. Cutting shall be done from top to bottom under no circumstances shall undermining or undercutting be done.

DEMOLITION :-

Before any demolition work is commenced and also during the process of the work,

- a) All roads and open areas adjacent to the site shall either be closed or suitably protected.
- b) No electrical cable or apparatus which is liable to be a source of danger or a cable or apparatus used by operator shall remain electrically charged.
- c) All practical steps shall be taken to prevent danger to person employed from risk of fire or explosion or hoarding. No floor, roof or other part of building shall be so overloaded with debris of materials as to render it unsafe.

All necessary personal safety equipments as considered adequate by the Engineer-in-charge are available for use of persons employed on the site and maintained in condition suitable for immediate use and contractor shall take adequate step to ensure proper use of equipment by those concerned.

- a) Workers employed on mixing asphaltic materials cement and lime mortars concrete shall be provided with protective footwear and protective goggles.
- b) Those engaged in handling any materials which is injurious to eyes shall be provided with protective goggles.
- c) Those engaged in welding works shall be provided with welder's protective eye shields.
- d) Stone breakers shall be provided with protection, goggles and protective clothing and seated at sufficiently safe intervals.
- e) When workers are employed in sewers and manholes which are in use, the contractor shall ensure that manhole covers are opened and manholes are ventilated at least for an hour before workers are allowed to get into them. Manholes opened shall be cordoned off with suitable railing and provided with warnings signals or boards to prevent accident to public.
- f) The contractor shall not employ, men below the age of 18 and women on the work of painting with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions shall be taken.
 - i) No Paint containing lead or lead product shall be used by used except in the form of paste or readymade paint.
 - ii) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and of adequate strength and free from potent defects.
 - iii) Overalls shall be supplied the contractor to workman and adequate facilities shall be, provided to enable working painters to wash during and on cessation of work.
- g) When work is done near and place where there is risk of drowning all necessary equipment shall be provide and kept ready for use and all necessary steps taken for prompt rescue of all injuries likely to be sustained during the course the course of the work.

- a) These shall be of good mechanical construction, sound materials and adequate strength and free from potent defects and shall be kept in good repair and in good working order.
- ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and of adequate strength and free from potent defects.
- b) Every crane driver pre-hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding.
- c) In case of every hoisting machine and of every chain ring hook shackle ownel and pulley block used in hosting of lowering or as means of suspension safe working load shall be ascertained by adequate means. Every hoisting machines and all gear referred to above shall be plainly marked with safe working loads.

In 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. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

- d) In case of departmental machines safe working load shall be notified by the Engineer-in-charge. As regards contractor machines the contractor shall notify safe working load of each machine to the Engineer-in-charge whenever, he brings it to site of work and get it verified by the Engineer-in-charge.

Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with such means as will reduce to the minimum the risk of accidental descent of load. Adequate precaution shall be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced, when workers are employed. On electrical installations which are already energized insulating material wearing approved such as gloves, sleeves and coats as may be necessary shall be provided. Workers shall not wear any rings, watches any, carry keys of their materials which are good conductors of electricity.

All Scaffolds, ladders, and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at near places of work.

These safety provisions shall be brought 10 the notice of all concerned display on a notice board at prominent place at the work spot Persons responsible ensuring compliance with the safety code shall be named than by the contractor.

- i) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to inspection by the Engineer-in-charge of his representatives and the inspecting officers.

ii) Failure to comply with the provision hereunder shall make the contractor liable to pay to the Department as penalty an amount not exceeding Rs. 50/- for each default and decision of the Engineer-in-charge shall be final and binding.

Notwithstanding the above conditions 1 to 14 the contractor is not exempted from the operation of the order Act or rules in force.

22. PAYMENTS :-

a) Running Bills:-

one payment in a month will be granted by the Engineer-in-charge if the progress is satisfactory Contractor should submit bills to the Engineer-in-charge in appropriate forms.

b) Final Bills:-

The contractor should submit final bill within one month after completion of work and the same will be paid within 3 months if it is in order. Disputed items and claims if any shall be excluded from the final bill and settled separately after later on.

23. HANDING OVER OF WORK :-

All the working and materials before finally taken over by Government will be the entire liability of the contractor for guarding. Maintaining and making good any damages of any magnitude. Interim payments made for such work will not alter this position. The handing over by the Contractor and taking over by the Executive Engineer incharge or his authorized representative will be always in writing of which copies will go to the Executive Engineer incharge or his authorized representative and the contractor, it is however understood that before taking over such work Government will not put into regular use as distinct from casual or incidental one, except as specifically mentioned elsewhere in this contract or as mutually agreed to.

24. CLAIMS :-

Bills for extra work or for any claim shall be paid separately apart from the interim bill for the main work. The payment of bills for them main work shall not be withheld for want of decision on the extra or claims not covered in the appendices.

Claims for extra work shall be registered with 30 days of occurrence of the event. However bill for these claims including supporting data / details may be submitted subsequently.

25. Procurement of R.C.C. Pipe :-

The R.C.C. pipes required for the work shall be procured from the MSSIDC only. The payment toward providing and fixing NP2 / NP3 / NP4 Pipes will be released only after the contractor submits the bills of MSSIDC to authenticate that the pipes have been purchased from the MSSIDC. No payment towards the item of providing & laying of the pipe will be released in absence of the submission of requisite documents.

ADDITIONAL TECHNICAL CONDITIONS

32.1 The work shall be carried out in the best workmanship like manner and in strict

accordance with P.W.D. hand book Volume I & II 1960. Edition supplemented by specification attached and as per Standard Specifications Book of Government of Maharashtra of 1979 and as per specific order of the Executive Engineer or his representative from time to time.

32.2 The orders issued by the Government in P.W. Department and the Superintending Engineer, Akola (P.W.) Circle, Akola from time to time regarding construction procedure shall be binding on the contractor in addition to the specification contained in P.W.D. hand book Volume I & II and book of standard specification of P.W. Department and the specifications enumerated above.

32.3 The contractor shall submit day to day account of the materials issued to him and its use and also monthly progress and programme of work.

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32.4 a) The concrete mix design shall be got approved from Engineer in charge and the mix design shall give preliminary strength of 1.33 times working strength.

b) The maximum size of aggregate permissible would be as per A-7 page-8 of Standard Specifications Book 1979 Edition.

32.5 The items provided with watering for curing include continuous watering operations through out the day including lunch hours and also during holidays. For this purpose contractor shall have to construct tank of approx. 5000 liters capacity near each building and provide necessary Booster Pumps etc. to ensure adequate curing and wetting. Hold fasts coming in contact with R.C.C. columns shall be of sizes 30 cm x 4 cm to be fitted with two rows, nails fixed properly in concrete.

32.6 For all sand covering items, use of washed mixer sand (with sand washing machine) is obligatory. No separate claim in this regard will be entertained.

32.7 Material testing requirement frequency and type of testing is enclosed separately. Material to be used shall be tested accordingly and cost shall be borne by contractor.

32.8 For R.C.C. centering plywood and M.S. sheet of approved quality shall be used and adjustable props and fasteners shall be used.

32.9 The execution of any work from external side of the building 'H' frame steel scaffolding shall be used. No separate payment for claims in this regard shall be entertained.

32.10 The scaffolding shall not be supported on existing external walls of the building by making holes in it and also the scaffolds shall not rest on any part of the building.

32.11 Quality Assurance Manual : Contractor shall prepare the quality assurance manual booklet in consultation with the Executive Engineer. Quality assurance manual shall be comprehensive document covering every aspect of the work. Superintending Engineer shall approve this document. The quality manual document shall be used only after approval from Superintending Engineer. Provision of the quality manual be binding on the contractor. Quality manual shall be treated as a legal document as per with this contract document. It shall be used till the work is completed in full respect.

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Annexure 'A'

QUALITY CONTROL TESTS

(Refer Condition No.7 (vi) on Page No.91)

Sr.No. Material Test

- 1 Laterite Stone i) Compressive Strength. ii) Water Absorption
- 2 Trap Metal i) Crushing value. ii) Impact value. iii) Abrasion value. iv) Water Absorption. v) Flakiness Index & Elongation index vi) Gradation

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- 3 Bricks i) Crushing Strength.
ii) Water Absorption.
- 4 Flooring Tiles i) Flexural strength ii) Water Absorption
- 5 Glazed Tiles i) Water Absorption
- 6 Cement i) Compressive Strength
ii) Initial setting time.
iii) Final setting time.
iv) Specific Gravity
v) Soundness
vi) Fineness
vii) Std. Consistency
- 7 Steel i) Weight per meter.
ii) Ultimate Tensile stress.
iii) Yield stress
iv) Elongation
v) Bend Test.
- 8 Interlocking concrete paving block i) Compressive Strength
ii) Flexural Test
iii) Resistance to wear
- 9 Wood work (shutters) i) End immersion tests
ii) Knife test
iii) Glue adhesion test
- 10 Cement Concrete i) Mix design ii) Compressive strength
- 11 Structural steel i) Weight/Running metre
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- 12 Murum i) Optimum Dry Density
ii) C.B.R.
iii) Liquid & Plastic Limit/Plasticity Index
iv) Filed Density 100% P.D.
v) Filed Moisture Content
13
Sand i) Water Absorption & Specific Gravity
ii) Fineness Modulus iii) Silt Content
iv) Bulkage
- 14 Water i) P.H. Value / For water
ii) Chloride & Sulphate content
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Annexure 'B'

Construction Material Testing & its frequency

(Refer Condition No.7 (vi) on Page No.113)

Sr. Material Rate Frequency

1 CEMENT

- 1) Consistency
 - 2) Initial & Final Setting time
 - 3) Fineness
 - 4) Specific Gravity
 - 5) Soundness
 - 6) Compressive Strength
- Test per 50 M.t. above six tests shall be carried.

2 METAL

- a 1) Sieve Analysis (Gradation)

(Concrete work)

1 Test for every day work

2) Sieve Analysis Red

Book Specification

1 Test per 100 m³

3) Sieve Analysis

Granular Sub Base (N.H.Work)

MOST 1 Test per 200 m³

b Water Absorption 1 Test per 200 m³

c Impact (Concrete WBM/BT) 1 Test per 200

m³ d Crushing 1 Test per for Each Source

e Abrasion 1 Test per for Each Source

f Flakiness & Elongation Index 1 Test per 200

m³ g Plasticity Index for blindage used for

WBM

1 Test per 25 m³

3 SAND

1) Water Absorption & Specific Gravity 1 Test per for Each Source

2) Fineness Modulus 1 Test per for Each day

3) Slit Content 1 Test per for Each day work

4) Bulkage 1 Test per for Each day work

4 BRICKS

1) Water Absorption

2) Comp Strength

3) Effloresce

For each 50000 Nos bricks Above

three test are to be carried out

5 Flooring Tiles

1) Flexural Strength

2) Water Absorption

3) Abrasion

For 2000 Nos of Tiles above

three tests are to be carried out

6 Glazed Tiles

1) Water Absorption 1 Test- 6 Tiles per 2000 Nos.

7 Concrete Mix Design 1 Concrete Mix Design for each

Compressive strength C.C.

Cubes for Qty

grade of concrete per every per

hour Qty. upto 5 m³ 1 Set (3 Nos.)

6-15 m³ 2 Set (3 Nos)

16-30 m³ 3 Set (3 Nos)

31-50 m³ 4 Set (3 Nos)

Quantity above 51 m³ 4+1 additional set per 50 m³
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8 MURUM/ SOIL for earth work

1) Optimum Dry Density 2 Test per 3000 m³

2) C.B.R. 1 Test per 3000 m³

3) Liquid & Plastic Limit/Plasticity

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1 Test per 3000 m³

4) Filed Density 100% P.D. 1 Test per 3000 m³

5) Filed Moisture Content 1 Test per 3000 m³

9 WOOD

1) Moisture Content 1 test per Source

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2) Density 1 test per Source

10 WATER

1) P.H. Value for Water and Sand 1 test per Source

2) Chloride & Sulphate content 2 test per Source

11 Steel

1) Wt per meter

2) Ultimate Tensile Stress

3) Yield stress

4) Elongation

One test for every 5.0 MT or part thereof for each diameter

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The contractor shall achieve that following requirements in respect of quantity of work and his contract rate shall provided for the same.

1.1 ADMIXTURES :-

Whenever necessary the admixture should be used to achieved the required workability. The type of admixture should be got approved from Engineer-in-charge. The rate is inclusive of all admixtures etc. if found necessary.

1.2 CEMENT IN CONCRETE :

For this purpose the conditions mentioned in additional specifications on Page 125 to 129 shall be applicable.

1.3 WATER / CEMENT RATIO :

For high quality concrete of low permeability, the water/cement ratio shall be as per IS 456 and mix design, more than 0.45 and preferably 0.40 or less subject to the attainment of adequate workability.

1.4 CURING FOR CONCRETE :

Special attention shall be paid to curing of concrete in order to ensure maximum durability and to minimize cracking. Concrete shall be cured with fresh water whenever it is possible to ensure that the concrete surface can be kept wet despite wind, etc. care shall be taken to avoid rapid lowering of concrete temperatures caused by applying cold water to hot concrete surface (thermal shock) Sea water shall not be used for curing reinforced concrete or prestressed concrete. Where there is doubt about the ability to keep concrete surface permanently wet for the whole of the curing period heavy duty membranes curing compound shall be used.

1.5 CONCRETE COVER TO REINFORCEMENT :

(i) The cover concrete must be of the same quality, impermeability and strength as the rest of the concrete. Special mix design should be carried out for the concrete to be used for making concrete cover blocks.

(ii) The concrete cover must develop sufficient alkalinity, and protect the steel. The alkalinity developed shall not be less than 0.04 N and shall not more than 0.08 N.

ADDITIONAL SPECIFICATIONS

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(iii) The cover must be uniform throughout and it's thickness shall be exclusive of plaster or other decorative finishes.

(iv) The concrete cover shall be as per the relevant clause of IS codes. In the case of poles the cover thickness shall be separately decided by the Engineer in charge.

1.6 DETAILING OF MISCELLANEOUS ITEM :

Binding Wires : All ends of binding wires shall be carefully turned inwards so that they do not project out of concrete and start rusting action. Plastic coated galvanized wires shall be used. Wherever possible polythene binding string and polythene bar grips shall be used, after making sure that these do not result in loss of bond or chemical reaction with concrete. The use is subject to approval of Engineer-in-charge.

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1.7 BAR SPACING : As per relevant I.S. codes and as detailed design drawing or as directed by Engineer-in-charge.

1.8 HOLLOW IN CONCRETE : After concreting is complete the concrete surface particularly where there is congestion of reinforcement, shall be tested by light hammering or if possible by Schmidt hammer. Any portion showing signs of hollowness should be grouted immediately.

SPECIFICATION FOR FORMWORK AND STEEL, CENTERING :-

I) FORMWORK :-

1.1 Formwork :- Formwork shall include all temporary forms of moulds required for forming the concrete which is cast-in-situ, together with all temporary construction required for their support. Unless otherwise stated all formwork shall conform to I.S. Specification.

1.2 Design of Formwork :- Formwork including complete false work shall be designed by the contractor in accordance with I.S.: 2750 (1964), 4041 (1987) and all other relevant I.S. codes without any extra cost to the Government and these shall be got approved from Engineer before any formwork is taken up.

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1.3 The contractor shall entirely be responsible for the adequacy and safety for false work notwithstanding any approval or review by the Engineer of his drawing and design. Proprietary system of formwork if used a detailed information shall be furnished to the Engineer for approval.

2. QUALITY OF SHUTTERING : The shuttering shall have smooth and even surface and its joints shall not permit leakage of cement slurry.

2.1 Ply-board shuttering materials to be used shall be steel shuttering/marine plywood well seasoned free from projecting nails, splits or other defects that may mark on the surface of concrete. It shall not be so dry as to absorb water from concrete, or so green or wet as to shrink after erection. Mild steel plates or plywood shall be used for slab and beam bottoms.

2.2 The timber shall be accurately spawned planed on the sides and the surface coming in contact with concrete.

2.3 So far as practicable, clamps shall be used to hold the forms together. Where use of nails is unavoidable minimum number of nails shall be used and these shall be left projecting so that they can be easily with drawn. use of double headed nails shall be preferred.

3. TOLERANCE :-

3.1 The formwork shall be made so as to produce finished concrete true to shape, lines, levels plumb and dimensions as shown on the drawings, subject to the following tolerance unless otherwise specified in these documents or drawings or as directed by the Engineer :

a) Section dimension = 5 mm

b) Plumb = 1 in 1000 of height

c) Levels = 3 mm before any deflection takes place.

3.2 Tolerance given above are specified for local aberrations in the finished concrete surface and should not be taken as tolerance for the entire structure taken as a whole or for the setting and alignment of formwork which should be as accurate as possible to the entire satisfaction of the Engineer, Errors if noticed in any lift/ tilt of the structure after stripping of forms, shall be corrected in the subsequent work to bring back the surface of the structure to its true alignment.

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4. SPECIAL PROVISION :- Whenever the concreting of thinner members in required to be carried out within shutters of considerable depth, temporary openings in the side of the shutters shall, if so directed by the Engineer be provided to facilitate the purning and consolidation of the concrete. Small temporary openings shall be provided as necessary at the bottom of shutters of walls and deep beams to permit the expulsion of

rubbish etc.

5. REMOVAL OF FORMWORK :- The formwork shall be so removed that it shall not cause damage to concrete. Centering shall be gradually and uniformly lowered in such a manner as to avoid any shock or vibrations. Supports shall be removed in such a manner as to permit the concrete to take stresses due to its own weight uniformly and gradually.

The whole of the formwork removal should be planned and definite scheme of operation shall be worked out. Under no circumstances forms be struck until the concrete reaches a strength of at least twice the stress to which the concrete may be subjected at the time of striking but not before the period as mentioned in IS:456-2000 where ordinary Portland cement is used.

II) STEEL CENTERING :-

1. **Work include :-** Erecting steel centering with contractor's material comprising of standard steel adjustable props and standard steel trusses / joists / spans, centering place for bottom of slab and steel plats for bottom of beams etc. of adequate strength properly balanced for obtaining adequate rigidity to with stand all loads coming on it including permanent and temporary fixtures and fastenings etc complete for R.C.C. member like beams slabs and canopy including its removal after the specified period, stacking making good the damaged parts / its replacement before its next use with all leads and lift (all centering material shall be contractor.)

2. For R.C.C. works formwork shall be of marine plywood of adequate thickness and grade only. The centering and supporting arrangement such as standard steel trusses/ joists/ spans standards adjustable/ fixed props. H type frames etc shall be designed by the Contractor and approved from the Engineer before commencement of its erection. The Contractor with the prior approval of the Engineer shall use standard steel centering arrangement which may be manufactured by the reputed firm.

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3. The supporting arrangement designed by the contractor shall conform to the relevant I.S. code and Standard practice adopted in this type of work. The centering arrangement shall be adequately braced and properly secured by using appropriate type of fastenings and fixtures to ensure stability and rigidity of the centering to withstand all loads coming on it. The entire responsibility for design, erection, maintenance and safety etc. will exclusively rest with the contractor. The Engineer reserves right to call detailed design calculations of the entire centering or part there of to verify its stability and also reserve tight to reject entire centering arrangement or part there of and any material used for the centering in the event of which the contractor shall have to arrange for its replacement at his own cost.

SPECIFICATIONS FOR CONCRETE WORKS :-

1 DESIGN OF CEMENT CONCRETE MIXES :

a) All the cement concrete of grade M-15 and higher strength shall be done with proper mix design as per IS : 10262 - 1982 and shall confirm to the durability and other requirements of IS 456 2000. The mix design shall be got approved from the Executive Engineer from time to time whenever there is change in the source and type of cement and aggregates and change in the gradation of aggregates.

b) The design of concrete mixes for various concrete items in the work shall be obtained by the contractor at his cost from and approved laboratory. The contractor shall submit in advance details of such design to the Engineer-in-charge for his prior approval.

c) For concrete of Grade M-25/ M-30/M-35.

Preliminary mix design must be carried out from an approved laboratory, for subsequent changes field mix design shall be acceptable. However incase the Executive Engineer has got difficulty in acceptance of the field mix design, laboratory mix design shall be got done by the contractor from approved laboratory at his own cost. Cement, fine aggregate and coarse aggregate must be used by weight only according to the requirement of the approved mix design.

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d) The concrete mix design shall give target strength of 1.33 times the working strength.

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e) The minimum size of aggregate permissible shall be as per para A-7 of Page - 8 f of standard specification book of 1979 Edition Vol. 1.

f) The provision of the specification No. B-7 at page - 38 to 40 of Vol. 1 1979 Edition of standard specification book for controlled concrete shall be applicable for all the structural concrete items. The maximum water cement ratio shall be 0.45. The mix design shall be done accordingly.

g) All the expenses of preliminary mix design, subsequent field/ laboratory mix design, work tests, shall be borne by the contractor.

2. FORMWORK FOR CONCRETE WORK :- The forms of concrete shall be of the materials as directly by the Executive Engineer-in-charge and shall preferably be of steel or plywood, Forms shall be of the required shape, profile and lines. Suitable devices shall be used to hold corners, adjacent ends, edges of panel or other forms together in accurate alignment. The forms and joints shall tight enough. Forms used for circular curved or structures of unusual shape, petal dome etc. shall be of such a character that will result in smooth concrete surface and exact shape. They shall be prepared such that they will not warp or distort during erection or while placing concrete. Their design and layout shall be got approved from the Executive Engineer-in-charge in advance.

3. ERECTION AND REMOVAL OF FORM WORK :- The centering and strutting shall be of steel or plywood board exclusively for concreting. The design and drawing should be got approved in advance from the Department. For minor members the Engineer-in-charge may, at his discretion, permit use of wooden shuttering. The centering and shuttering shall be close and tight to prevent leakage of cement slurry. The centering shall have the necessary props, bracing and edges sufficiently strong and stable which shall not yield or displace while or after laying of concrete. They shall be made in such way that they can be slackened and removed gradually and slowly without disturbing the concrete. Centering and shuttering shall not be removed before the design strength is achieved.

4. MIXTURE OF CONCRETE :- Design mix concrete as well as nominal mix concrete shall be mixed by following the provision in Standard specification at B. 6.4 unless otherwise directed by the Engineer.

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Unless otherwise agreed by the Engineer concrete shall be mixed in a batch type mixer of such other type of mixer as the Engineer may approve.

During hot weather the Contractor shall ensure that the constituent materials are sufficiently cool to prevent the concrete from stiffening in the intervals between its discharge from the mixer and its final position.

5. TRANSPORTATION, PLACING AND COMPACTION OF CONCRETE :- The method of transportation placing and compaction of concrete shall be followed as per section B.6.6, 6.7 and 6.8 of Standard Specification unless otherwise directed by the Engineer. The compaction shall be done with surface float vibrators for slabs and with pin vibrators for columns and beams. Vibrators of adequate vibrating capacity shall be employed for all types of works.

6. CURING :- Curing shall be done by following provision of Section B.6.9 of Standard Specification and as directed by the Engineer.

7. WORKING IN EXTREME WEATHER : During windy weather sufficient protection shall be provided to prevent the cement from being blown away during the process of proportioning and mixing. During wet weather, the concrete shall be adequately protected as soon as it is placed in position. No concreting shall be carried out during period of continuous heavy rains unless, it is completely covered during mixing, transporting and placing, In extreme hot weather, concreting shall be restricted to morning and evenings The time between mixing and

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placing of concrete shall be kept to the minimum and formwork shall be cooled by sprinkling with water.

8. **FINISHING** : Finishing work shall comply with requirement of section B.6.10 of Standard Specification unless otherwise specified herein below : Immediately on removal of forms, the R.C.C. work shall be examined by the Engineer before any defects are made good.

a) The work that has sagged or contains honey combing to an extent detrimental to structural safety or architectural concept shall be rejected.

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b) Surface defects of a minor nature shall be rectified generally as indicated below by the contractor.

i) Surface defects which require rectification when forms are removed usually consist of bulges due to movement of forms, ridges at form joints, honeycombed areas, damage resulting from the stripping of forms and bolt hole. Bulges and ridges shall be removed by careful chipping or tooling and the surface is then rubbed with a grinding stone. Honey combed and other areas shall be chipped out, the edges being cut as straight as possible and perpendicular to the surface, or preferably slightly under cut to provide a key at the edge, of the patch. Bolt holes shall be closed by cement mortar to ensure thorough filling.

ii) Shallow patches shall be treated with a coat of thin grout composed of one part of cement and one part of sand and then filled with mortar similar to that used in concrete. The mortar is placed in layers not more than 10 mm thick and each layer shall be given a scratch finish to secure bond with the succeeding layer. The last layer shall be finished to match the surrounding concrete by floating, rubbing or tooling on formed surfaces by pressing the form material against the patch while the mortar is still plastic.

iii) Large and deep patches requires filling up with concrete held in place by forms. Such patches shall be reinforced and carefully dowelled to the hardened concrete.

iv) The same amount of care to cure the material in the patches shall be taken for the whole structure. Curing shall be started, as soon as possible after the patch is finished to prevent early drying. Damp Hessian cloth may be used. But in some locations it may be difficult to hold it in place, a membrane curing compound in these cases will be most convenient.

9. **CONSTRUCTIONS JOINTS** : Construction joints shall be provided and treated following the provisions of Specification and as directed by the Engineer-in-charge.

10. **DURABILITY** :- Minimum cement contents for different exposures and sulphate attack are given in Tables 4 and 5 of I.S. 456, 2000 shall be followed for design mix.

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11. **TESTS AND STANDARD OF ACCEPTANCE** :-

11.1 Tests and Standard of acceptance criteria of design mix concrete and nominal mix concrete shall be as follows:

Sampling and testing of Concrete shall be done as per provision of section B.6.12 of Standard Specifications. Acceptance criteria for strength of concrete shall be as per IS 456-2000.

Case falling outside the above limit shall be examined by the Engineer on Merits in each case.

11.2 **DEFECTIVE CONCRETE** : Any concrete which gives substandard results, or is severely damaged due to cracking or shows excessive honey combing and exposure of reinforcement, if exhibits any fault which in the opinion of the Engineer, seriously impairs its function, may be declared as defective concrete. Such non acceptable concrete shall be removed from the site and replaced by fresh concrete of the specified quality by the contractor at his own expenses. Alternatively in case of

acceptable concrete, the Contractor shall carry out whatever other remedy the Engineer may reasonably suggest "Small rendering shall be done by the Contractor without extra cost."

12 KEEPING RECORDS : The record of mix design, mixing, slum, testing of C.C. cubes etc. shall be maintained in accordance with Section B-6.13 of the Standard Specification.

13 R.C.C DESIGN

1 The Agency shall submit the detailed R.C.C Design conforming to Is 456-2000 ,IS1993 ,2002 and Design Circle's note seismic Zone II and got approved from the competent authority at his own cost.

2 The detailed architectural drawings are attached with the tender such as general layout of plan and building drawing . There are no structural type design with details of reinforcement readily available with department. The contractor shall provide the detail structural design and drawings based on the standard practice of P.W.D Maharashtra , after award of contract and shall got it approved from competent authority No separate payments in this account and no extra time will be allowed for preparation and approval of design and drawings.

i) General R.C.C. Layout and foundation plan with approximate orientation of structural member and approximate concrete sizes and lives loads considered.

ii) After approval of the above, the detail structural design and drawings shall be prepared and got approved.

iii) R.C.C design shall include;

a) Columns footing, Columns up to plinth level , Beams and slabs.

b) Columns, superstructure / Beams of slabs at typical floor level and roof level slabs at all floor levels.

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LIST OF APPARTUS REQUIRED FOR BUILDING WORK

(Ref. Page No.92 Clause 7.1, Page No.109 Clause 24)

Sr. Name of Apparatus Nos (min) required

1. 30 m and 50 m chain/ tape 2 Nos

2. Automatic leveling instrument/ Tachometer with all accessories like 5.00 metre staff
2 Nos.

3. Vernier calipers 1 No.

4. Cube moulds for concrete/ Cube moulds for cement mortar 6 Sets

5. Silt jar for sand silt testing. 4 Sets

6. Oven- Electrically operated, thermostatically controlled, range upto 200 °C sensitivity 1°C.

1 No.

7. Platform balance 300 kg capacity

8. Balance 20 kg capacity - self indicating type 1 No.

9. Electronic Balance 5 kg capacity, accuracy 0.5 gm 2 Nos

10. Water bath- electrically operated and thermostatically controlled with adjustable shelves, sensitivity 1°C.

1 No.

11. Thermometers : Mercury-in-glass thermometer, range 0° to 250°C

Mercury-in-steel thermometer with 30 cm stem, range upto 300°C.

4 Nos.

12. Kerosene or gas stove or electric hot plate. 1 No.

13. Set of IS sieves with lid and pan:

450 mm diameter

63 mm, 53 mm, 37.50 mm, 26.50 mm, 13.20 mm, 9.50 mm, 6.70 mm, and 4.75 mm size

200 mm diameter

2.36 mm, 2.0 mm, 1.18 mm, 600 micron, 425 micron, 300 micron, 150 micron, and 75 micron

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1 Sets

2 Sets

14. Water testing Kit 1 Set

15. Atterbergs Limits (liquid and plastic limits)

Determination apparatus

1 Set

16. Dry Bulk Density Test apparatus (sand pouring cylinder, tray, can etc.).

1 Set

17. Speedy Moisture Meter complete with chemicals 1 Set

18. Aggregate Impact Value Test apparatus/

Los Angles Abrasion Test

apparatus. 1 Set

19. Flakiness and Elongation Test Gauges 1 Set

20. Vicat apparatus for testing setting times 1 Set

21. Slump testing apparatus 4 Sets

22. Compression and Flexural strength testing machine, 200 tonne capacity with additional dial for flexural testing.

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QUALITY ASSURANCE AND MAINTENANCE

To ensure the specified quality of work which shall also include necessary surveys, temporary works etc., the contractor shall prepare a quality assurance plan and get the same approved from the **Engineer in charge** within eight days from the date of work order. For this, contractor shall submit an organization chart of his technical personnel to be deployed on the work along with their qualification, job descriptions defining the functions of reporting, supervising inspecting and approving. The contractor shall also submit a list of tools, equipment's and the machinery and instrumentation which he proposes to use for the construction and for testing in the field and/or in the laboratory and monitoring. The contractor shall modify/supplement the organization chart and the list of machinery, equipment etc. as per the direction of the Superintending Engineer and shall deploy the personnel and equipment on the field as per the approved chart and list respectively. The contractor shall submit written method statements detailing his exact proposals of execution of the work in accordance with the specifications. He shall get these approved from the **Engineer in charge**. The quality of the work shall be properly documented through certificates, records, check-lists and logbooks of results etc. Such records shall be compiled from the beginning of the work and be continuously updated and supplemented and this shall be the responsibility of the contractor. The forms should be got approved from the **Executive Engineer-in-charge**.

The contractor shall prepare detailed completion drawings after completion of the work.

He shall also prepare and submit a maintenance manual giving procedure for maintenance, with the period of maintenance works including inspections, tools and equipment to be used, means of accessibility for all parts of the structure. He shall also include in the manual, the specifications for maintenance work that would be appropriate for his design and technique of construction. This manual shall be submitted within the contract period. .

R.C.C. Design for the Structure will make available by the contractor by his own cost before starting the work & get approval from the competent Authority Charges required for design should bear by the contractor

