

T. N. NO. 12/2023-24

Sr. No.12



Govt. of Maharashtra

WORKS DIVISION
Dr. P.D.K.V., AKOLA

B-1 FORM (Percentage Rate)

TENDER DOCUMENTS

NAME OF WORK

PROVIDING ELECTRICAL INSTALLATION TO COMPETATIVE FORUM AT
DR.PDKV.,AKOLA

NAME OF CONTRACTOR

AGREEMENT NO. B1/ /UE/2021-22

UNIVERSITY ENGINEER
WORKS DIVISION
DR. P.D.K.V., AKOLA

1) Name of Work PROVIDING ELECTRICAL INSTALLATION TO COMPETATIVE FORUM AT DR.PDKV.,AKOLA

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GOVERNMENT OF MAHARASHTRA
WORKS DIVISION
Original Agreement No. B-1
GENERAL INFORMATION OF CONTRACT

- 1) **Name of Work** : **PROVIDING ELECTRICAL INSTALLATION TO COMPETATIVE FORUM AT DR.PDKV.,AKOLA**
- 2) **Name of Contractor** : M/s./Shri _____

- 3) **Date of Tender** :
- 4) **Amount of Contract** : **Rs. 1,85,399/-**
- 5) **No. & Date of work Order** :
- 6) **Date of Commencement** :
- 7) **Time stipulated for completion as per Agreement** : (60) Days
including monsoon period and govt. holidays.
- 8) **Date of completion as per Agreement.** :
- 9) **Actual Date of Completion** :
- 10) **Reference to Sanction of Extension of Time limit.** : 1) _____
2) _____
3) _____

Certified that this Original Agreement contains pages from 1 to _____.

Fly Leaves _____ Nos. and Drawings _____ Nos.

B - 1 TENDERS

Shri/M/s. _____ Contractor
registered in class _____ vide University Engineer, Works Division,
_____ with reference to his/their download Tender document form
www.pdkv.ac.in web site vide payment gateway dated _____ cost Rs. 200/- +
GST received as per Pay University Engineer Office, Dr. PDKV Akola receipt.

Accounts Officer
Works Division Dr. PDKV Akola

DETAILS OF WORK

Name of Work : **PROVIDING ELECTRICAL INSTALLATION TO
COMPETATIVE FORUM AT DR.PDKV.,AKOLA**

Estimated cost put to tender :- **Rs. 1,85,399 /-**

Earnest Money @ ½ or 1percent :- **Rs. 3000 /-**
subject to minimum of Rs.

Term Deposit Receipt of Schedule Bank / State Bank Challan should be attached
with the tender at the time of submission.

Total Security Deposit @ 2% : **Rs. 6000 /-**
/-
(at the time of Agreement)

Time stipulated for completion : __One (60) Days which will include
the monsoon period and govt. holidays, if any.

TO BE FILLED BY THE CONTRACTOR.

I/We have quoted my/our offer in percentage rate in words as well as in figures
specifying below/above. I/We further under take to enter into Contract in regular 'B-1' form
in WORKS DIVISION.

Name of Work : **Scope of Work**

(As per Schedule B attached)

Check List of documents to be submitted with the tender and the general information to the Contractor for Submission of tender.

The following documents should be submitted in **(Envelope No.1)** duly attested by a officer not below the rank of Ex. Engineer of Govt. of Maharashtra in service on the date fixed for the receipt of tender with the forwarding (Covering) letter along with list of all documents/forms/ statement.

Sr. No	Brief details of documents required to be attached.	Whether enclosed or not
1.	Attested copy of the valid registration certificate as a contractor with the Government of Maharashtra in appropriate class.	
2.	Earnest money in the form of Bank Gurantee / FDR Deposit receipt valid for a period of one year issued by a Schedule Bank in the name of University Engineer, Dr. P.D.K.V., Akola from the date of issue/receipt of tender.	
3	Registration certificate as per Tax deduction at source as per section 51 of Goods and Services Act-2017 as provided under section 51 of MGST/CGST Act. Registration will be made available on WWW.gst.gov.in from 20.7.17	
4	Attested copy of valid professional Tax PT/E, PT/R Certificate/ /clearance certificate, PAN Card.	
5	Receipt of Tender Fee form www.pdkv.ac.in web site	
6	Bid Capacity (As per Govt. G.R. dt.17.09.2019) (* Supported Document such as similar type work done/work in hand certificate to be attached)	
7	Affidavit (On Rs.100/- Stamp Paper)	
8	Attested Copy of Annual Turnover Certificate of previous three years up-to last audited financial year.	

Note: - Contractor has to quote his offer both in figures and in words at **Page No. 37** in this B-1 tender form.

DETAILS OF WORKS (As above)

:

Sr. No	Name of work	Estimated amount put to tender	Earnest money 1 % subject to minimum Rs. ---	Security Deposit 2%	Cost of form (Non refundable)	Stipulate Period for completion	Last date and time & place of receipt of Tender	Class of Contract or.
1	2	3	4	5	6	7	10	11
1	PROVIDING ELECTRICAL INSTALLATION TO COMPETITIVE FORUM AT DR.PDKV.,AKOLA	Rs. 1,85,399 /-	Rs.3000/-	1) Rs. 6000/- at the time of agreement	Rs 200 + GST = 236/-	60 Days Including Monsoon period and govt. holidays.	upto 15.00 Hrs. in the office of the U.E. Dr P.D.K.V. Akola	Appropriate Class

Note : University Reserved the Right to

- To postpone/change/cancel the above mentioned date, modify the terms and conditions include new items and conditions, split and distribute the work amongst more than one agency etc. in the interest of the Projects/University, without assigning any reason whatsoever.
- To cancel the Advt./Enlistment of the Agency against the above tender , anytime without assigning any reason whatsoever for which no claim on any ground shall be entertained.
- To accept or reject any or all the applications/offers received as its own discretion, without assigning any reasons whatsoever for which no claim on any ground shall be entertained.

Contractor

No of correction

University Engineer

**GOVERNMENT OF MAHARASHTRA
WORKS DIVISION
DETAILED TENDER NOTICE FOR CONTRACTOR**

1) Sealed tenders in “B-1” (Percentage rate) form are invited from the registered contractor in Appropriate Class with the Government of Maharashtra, P.W.D. for the work of **PROVIDING ELECTRICAL INSTALLATION TO COMPETATIVE FORUM AT DR.PDKV.,AKOLA** up to 15.00 hours on _____ (as per tender schedule) by the University Engineer, Works Division, Dr. PDKV Akola

2) **SITUATION OF THE WORK:-** The work site is located in **Dist. Nagpur**

3) The estimated cost of work is **Rs. 1,85,399/-**

4) Time limit for completion of the work is **60 Days** Calendar from the date of work order including monsoon period and govt. holidays, if any.

5) **ISSUE OF TENDER FORMS :-** (As per Schedule)

Blank tender forms can be had from the office of the **University Engineer, Works Division, Dr. PDKV Akola** up to during office hours on payment of **Rs. 236 /-** Particulars regarding the work can also be had from the Office of the **University Engineer, Works Division Dr. PDKV Akola** during the office hours.

Completed tender in the manner specified in the following forthcoming paragraphs will be received **upto 15.00 Hours. on or before** ----- in the office of the **University Engineer, Works Division Dr. PDKV Akola**.

7) **VALIDITY :-**

Validity of the tender will be **90** days from the date of opening of the tender and there after until it is withdrawn by notice in writing duly addressed to the authority opening the tender by contractor. Such withdrawal after **90** days shall be effective from the date of receipt of notice by the **University Engineer, Works Division Dr. PDKV Akola**

8) **EARNEST MONEY :-**

i) Earnest money in the form of Bank Gurantee / FDR Deposit receipt valid for a period of one year issued by a Schedule Bank in the name of **University Engineer, Works Division Dr. PDKV Akola** from the date of issue/receipt of tender.

ii) The amount will be refunded to the unsuccessful tenderers on deciding about the acceptance or otherwise of the tender. In case of a successful tenderer, it will be refunded on paying the initial Security Deposit and completing the tender documents in Form “B-1”.

9) **SECURITY DEPOSIT :-**

9.1) The successful tenderer whose tender is accepted will have to pay **Rs.-6000/-** towards the Security Deposit. **Rs. 6000/-** is to be deposited in F.D.R. of the scheduled bank/National Saving Certificate duly pledged in the name of the **University Engineer, Works Division Dr. PDKV Akola** towards the initial Security Deposit, within the time limit prescribed in clause-1 of B-1 form agreement, failing which his earnest money will be forfeited to Government. In addition to it, an amount of **Rs. 6000/-** will be deducted from the Running Bills at 2% of the gross bill towards balance security deposit, This is a compulsory deduction.

9.2) **PERFORMANCE SECURITY :-**

ADDITIONAL PERFORMANCE SECURITY :- After opening of financial Bid (Envelope No. 2) if quoted offer of the lowest tenderer (L-1) is found below the estimated cost of the department then, L-1 tenderer should deposit submit the required **"Additional Performance Security"** within period of eight days from the date of opening of financial Bid (Envelope No. 2) in the form of **Demand Draft/FDR/Bank Guarantee**. **The L-1 tenderer should take cognizance that this time limit of 8 working days will not be relaxed/extended for any reason.**

If L-1 tenderer should not submit **Additional Performance Security** as stated above, then his offer will be considered as "Non-Responsive" and Second lowest's (L-2) tenderer will be called for negotiations. If such L-2 is agreed to execute the work below than the rates than L-1 then such L-2's revised offer will be considered for acceptance of the tender.

A) If L-1 tenderer's offer is below more than 1 % to 10 % of the estimated cost put to tender then he should submit **Demand Draft/FDR/Bank Guarantee** amounting to **1%** of the estimated cost of the department towards **Additional Performance security**.

B) If L-1 tenderer's offer is more than 10 % below upto 15% of the estimated cost put to tender then he should submit **Additional Performance security of 1 % for every percent after 10 % below percentage in addition to** the cost of **1%** performance security mentioned above clause A for quoting below offer.

(eg. If **L-1 tenderer's offer is 15 %** below the estimated cost put to tender, then he should submit $15 - 10 = 5$ % Additional Performance security + 1% Additional Performance security = 6 % amount of the cost put to tender as a total Additional Performance Security.)

C) If L-1 tenderer's offer is more than 15 % below the estimated cost put to tender then he should submit **Additional Performance security 2 % for every percent after 15 % below percentage in addition to** the cost of **6%** Additional performance security mentioned above clause A & B. (eg. If **L-1 tenderer's offer is 19 %** below the estimated cost put to tender, then he should submit [1% for below upto 10% plus 5% for below upto 15 % & two times for remaining percentage i.e. $(19-15) 4 \% \times 2 = 8 \%$] Total $(1+6+8 =) 14$ % amount of the cost put to tender as Additional Performance Security.)

1) Such **Demand Draft/FDR/Bank Guarantee** shall strictly issued only by the Nationalized Bank or Scheduled Bank in favour of in the **University Engineer, Works Division Dr. PDKV Akola** and shall be valid for the minimum period of three months.

2) The Demand Draft should bear the MICR and IFSC Code Number of the issuing bank.

3) The **Demand Draft/FDR/Bank Guarantee** shall be submitted in the office of the concerned **University Engineer, Works Division Dr. PDKV Akola**. In **"sealed envelope"** within **stipulated period of eight working days as mentioned above**. The tenderer shall

write the 'Name of Work,' 'E- Tender No.' and 'Tender Notice No.' on such sealed envelope addressed to the concerned University Engineer.

4) If it is found that the **Demand Draft/FDR/Bank Guarantee** as above submitted by the tenderer is False / Forged Or Tenderer treated as "**Non Responsive**" then the Earnest Money submitted by such tenderer shall be forfeited and his registration as a contractor of WORKS DIVISION **will be suspended for the period of One year.** For this concerned Superintending Engineer shall have the full rights.

5) The work order to the successful contractor shall be issued only after the encashment of his **Demand Draft/FDR/Bank Guarantee** by the concerned University Engineer.

6) The amount of Additional performance security of successful contractor shall be refunded within the period of three months after the date of completion of said work successfully.

Note: - For calculating the amount of ADDITIONAL PERFORMANCE SECURITY contractors offer will be calculated in percentage rounded upto two decimal points only.

11) **TENDER PROCEDURE :-**

A) **Blank Tender Forms :**

Blank Tender Forms can be download from **the www.pdkv.ac.in** as Stipulated in the Tender Notice.

B) **Manner of submission of tender and its accompaniments:
Tender to be submitted in two separate sealed envelopes.**

a) **Envelope No.1 :**

The first envelope clearly marked as “Envelope No. 1” shall contain the following documents.

- (i) Attested copy of the valid **Registration certificate** as a contractor with the Government of Maharashtra in appropriate class.
- (ii) **Earnest money** in the form of Bank Guarantee / FDR Deposit receipt valid for a period of one year issued by a Govt. Nationalized Authorized Bank / Schedule Bank in the name of **University Engineer, Works Division Dr. PDKV Akola** from the date of issue/receipt of tender.
- (iii) Attested copy of valid **professional Tax PT/E, PT/R** Certificate, with attested copy of **PAN Card**.
- (iv) Original valid **GST registration certificate** from Goods and Services Act-2017 under section 51 of MGST/CGST Act GST-Tax Department.
- (v) All Xerox copies submitted in connection with the tender shall be attested by a officer not below the rank of Ex. Engineer. Otherwise their tender will not be considered & Envelope No. 2 will not be opened.
- (vi) Attested Copy of **affidavit** Sworn before Executive Magistrate / Notary regarding completeness, correctness and truthfulness of documents submitted online along with Tender on **Rs.100/- Stamp paper** as per prescribed Proforma given in Annexure. A
(Pg no 23)

- (vii) Copies of all declaration regarding the work shall be self attested..
- (viii) Unemployed Enggr. Kota (SUBE) is not consider in the tender process of Dr. P.D.K.V., Akola. Hence Every Tender is consider as a regular tender & all tenderer should submit EMD and no relaxation in EMD.
- (ix) **Bid Capacity Criteria :-** The Prospective Bidder will be qualified only if their available bid capacity is more than the Cost put to the Bid of the work as per notice inviting Bid. The available bid capacity will be calculated base on the following formula:
Available Bid Capacity = 2 * (A * N) – B
Where,
A = Maximum value of Electrical Engineering works executed in any one year during the last 3 years (updated to the current year by a factor of escalation of 8% per year) which will take into account the completed and ongoing works.

B = Value of existing commitments and works (Ongoing) to be completed During the next 60(days) Period of completion of the works for which bids are invited

N = Number of years prescribed for completion of work for which bids are invited.
- (x) Copies of Completed work with work done & work in hand certificate of last 5 years duly attested by a officer not below the rank of Ex. Engineer.
- (xi) Attested Copy of **Annual Turn Over** Certificate to be required upto last audited previous **three years**.

D) Envelope No. 2: Tender

The second envelope clearly marked as “Envelope No. 2” shall contain only the main tender including the common set of conditions/stipulation issued by the department after the pre-tender conference. A tender submitted without this would be considered as invalid and non responsive.

The tenderer should quote his offer on Schedule “B” of tender as percentage of estimated rates at the appropriate place of tender documents, to be submitted only in Envelope No. 2. He should not quote this offer anywhere directly or indirectly in Envelope No. 1. The contractor shall quote for the work as per details given in the main tender..

E) Submission of Tenders :-

Download tender document from www.pdkv.ac.in website and submitted The two sealed envelopes No. 1 and No. 2 shall be again put together in one common cover and sealed. This sealed cover shall be marked on the left hand top corner. Tender for the work as stated @ Sr. No.1 on page No _____. The full name and address of the tenderer shall be written on the bottom left hand corner. If submitted by the post the sealed envelope marked as above shall be enclosed in another cover

properly addressed and shall be sent by Registered post acknowledgement due. The date and time for receipt of Envelope containing tender shall strictly apply in all cases. The tenderers should ensure that their tender is submitted before the expiry of the date and time. No delay on account of any cause will be entertained for the late receipt of the tender. Tender offered or received after the date and time is over, will either not be accepted or if inadvertently accepted, will not be opened and shall be returned to the tenderer unopened.

As Per Government Circular -2016 CR-320/Road-1 Mantralaya Mumbai Dt.01.07.2016 Self

Certification and Bituman Invoice should be submitted with each & work runnig Account bill .

(Please see the Cicular on www.maharashtra.gov.in Computer Code 201607011233411318)

1.15 Instructions given by the Govt. Vide Marathi circular No. Misc.-2016/C.No. 20/Bldg.-2/Dt. 28-

04-2016 regarding E-MB & E-Billing system is applicable to this tender.

Work measurement in Electronic measurement book and Submission of Contractors monthly bill in electronic billing system . Reference Govt. Circular Public Works Deptt. Manatralay,

Mumbai . No. Misc. 2016/ case no. 20/ Bldg.2/ Dt. 28/04/2016 , 24.06.2016 & 2.9.2016.

1. As per clause 10 of this B1 contract , it is responsibility of the contractor to submit the bill

monthly to the Engineer-in-charge.

2. To discharge this responsibility the contractor shall

a) appoint system Integrator.

b) system Integrator shall be Registered at ITCC Nagpur.

c) System integrator shall provide his services to the department as and when required.

d) Data generated through E Bill Payment will be the property of the Department and access

will be only to the Department .

e) No claim of what so ever nature will be entertained by the department.

f) Payment to the system Integrator will not exceed 0.02% of the contract amount which will include payment towards generating of E Bill.

h) In support of the bills, required measurements , drawings, quality control reports (field

lab and VQCC as per clause of Additional General condition), site supervision data (Scada

shall be submitted in electronic form, the data so submitted shall have a facility to Tightly

integrate it with the contract conditions , provision in the Maharashtra Public Works

manual, Maharashtra Public Works Account Code (Updated to date of Submission of this

tender) and current general engineering practices (issued though various govt. resolutions,

govt. circulars Chief Engineers Circulars etc. issued up to date of submission of this tender.)

followed in WORKS DIVISION.

i) The Submission of e-bill shall be in the web based format.

j) The offer of Contractor shall be inclusive of all . He shall not be paid separately, his offer

shall be inclusive of all cost required for submitting bill in e-format mentioned as above.

k) The measurement of this work shall be recorded in Electronic Measurement Book.

l) The Unique I.D. code generated while processing of this tender shall be the E Measurement Book Number

Contractor shall submit a certificate to the effect that “All the payments to the labour/staff are made in bank accounts of staff linked to Unique Identification Number (AADHAR CARD).” The certificate shall be submitted by the contractor within 60 days from the commencement of contract. If the time period of contract is less than 60 days then such certificates shall be submitted within 15 days from the date of commencement of contract

F) Opening of tenders :-

On the date specified in Tender Notice following procedure will be adopted for opening of the tender:

Envelope No. 1

First of all, Envelope No. 1 of the tenderer will be opened to verify the documents as per requirements. If the various documents contained in this envelope do not meet the requirements of the Department, a note will be recorded accordingly by the tender opening authority and the said tenderer's envelope No. 2 will not be opened.

Envelope No. 2

The Envelope shall be opened if contents of Envelope No. 1 are found to be acceptable to the Department. The tendered rates in percentage above/below the estimated rates shall then be read out.

12) Important Points to be noted by the Tenderer :

- (A) (i) On receipt of Online downloaded blank tender form the tenderer should ensure that no correction or over writings or erasers is left out to be attested by the University Engineer.
- ii) The offer in percentage should be written both in words and in figures in the tender form. In case of deviation, the lowest percentage either in words or figures will be considered.
- iii) No alternations and additions in the form of tender and in the schedules and no additions in form of special stipulations are permitted. If any of these is found, the tender may be summarily rejected.
- iv) The offer shall be inclusive of all prevailing taxes octroi, Royalty charges etc. to be paid by the tenderer for the work and the claims for payment on any such by the tenderer for the work and the claims for payment on any such account shall not be entertained.
- v) In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof, and in the event of absence of any partner, it shall be signed on his behalf by a person holding a power of attorney authorizing him to do so.
- vi) All the pages correction/additions and pasted slips should be signed by the tenderer.

- vii) The tenderer shall be deemed to have studied all plans/specifications /terms/conditions of the tender and made himself /themselves acquainted with the site conditions and availability of labour, basic materials, water, electricity etc. before submitting the tender. A Declaration to this effect shall be signed by the tenderer in the form attached with the tender.
 - viii) The Contractor's offer shall include all Insurance Policies as stated in Additional Tender condition at Sr No 12 (A) on Page No ____ of tender Document. No claim on this account will be entertained.
- B) In case any clarification is required, the tenderer may obtain it personally or in writing well in advance from the University Engineer. In any case, the tenderer will be responsible to bind himself/themselves to the terms and conditions and specifications of the tender once submitted by him/them.
- C) The tender is liable for outright rejection if on opening, it is found that
- i) Any one or more of the mandatory documents required as per para 11 is or are missing.
 - ii) Any corrections, additions or alterations are made by the tenderer on any page of the tender.
 - iii) Any pages or pasted slips is or are missing.
 - iv) The tenderer has not signed at required places.
 - v) The contractor having three works of Dr. P.D.K.V., Akola University in hand shall not eligible for Submission of 4th Tender.
- D) Rate analysis must be given with Signature of contractor within 2 days after opening of tender if the rates quoted are more than below 15%. If the submitted rate analysis is not justifiable or found vague, tender will be rejected.
- 13) Amendment of Bidding Documents
- 13.1. Before the deadline for submission of tender, the Employer may modify the tender documents by issuing addenda / corrigendum
- 13.2. Any addendum / corrigendum thus issued shall be part of the tender documents and shall be communicated in writing or by cable to all the purchasers of the tender documents. Prospective tenderers shall acknowledge receipt of each addendum / corrigendum in writing or by cable to the Employer. The Employer will assume no responsibility for postal delays.
- 13.3 To give prospective tenderers reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of tender.
- 14) Acceptance of the tender rests with the competent authority who reserves the right to reject any or all tenders without assigning any reasons thereof.
- 15) This detailed tender notice shall form part of tender documents.
- 16) The Income Tax including surcharge @2.00% or percentage in force from time to time or at the rate as intimated by the competent Income Tax authority shall be deducted from the contractor from the gross bill amount of every bill, whether for measured work or advance payment and/or secured advance.

- 17) The successful tenderer will be required to produce to the satisfaction of the specified concerned authority valid and current licence issued in his favour under the provisions of Contract Labour (Regulation and Abolition) Act 1970 before starting the work. On failure to do so the acceptance of the tender shall be liable to be withdrawn and also liable for forfeiture of the earnest money.
- 18) Any dues arising out of contract will be recovered from the contractor as arrears of Land Revenue if not paid amicably. Moreover, recovery of Government dues from the contractors will be effected from the payment due to the Contractor from any other Government works under execution with them.
- 19) Deleted
- 20) As per the Govt. Resolution No. BCA 2009/CR108/ Labour 7A Mantralalya Mumbai dated 17/06/2010, the workers welfare cess @ 1% will be deducted from the gross bill amount of every bill either for measured work for advance payment and/or secured advance.
- 21) All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen @ head quarter of University Engineer Dr. PDKV Akola and only the Court @ Head Quarter of University Engineer Dr. PDKV Akola shall have jurisdiction to try and adjudication over them.
- 22) 1.22 Instructions given by the Govt. Vide Marathi circular No. Misc.-2016/C.No. 20/Bldg.-2/Dt. 28-04-2016 regarding E-MB & E-Billing system is applicable to this tender.
- 22.1) Tenderer shall quote his offer considering the fact of igst /cgst/sgst act 2017 (time to time amended by Government) No separate payment will be made on a/c of GST, TDS of GST will be made from every bill as per rate prescribed by Government time to time and as when applicable.
- 22.2) The rates quoted by the Contractor shall be deemed to be inclusive of the labour welfare cess and other taxes (other than GST) that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law
- 22.3) 1. Bidder shall quote his rate excluding GST.
2. GST shall be payable on the accepted contract value
3. GST Shall be paid to contractor on the amount of bill of work done as per prevailing rate of GST during the period of work done.

Clause for Royalty charges & Laboratory Testing Charges.

- I) Contractor will have to produce in original all Royalty passes in support of payment of Royalty to the Government. If he fails Royalty amount equivalent to the consumption of materials will be recovered from the contractor.
- II) Test Shall be Carried out in accordance with the Clause " Sample & Testing of Materials" given under Additional General Condition & Specification of this tender Document.
- III) Testing of Materials shall be Carried out as per the frequency specified by the Vigilance & Quality Control Circle Amravati & Shall be Responsibility of Contractor

- IV)** The Material required for testing shall be sent by the contractor to the specified Laboratory at his own Risk & Cost.
- V)** In Case the desired results are not obtained during testing or the material is rejected due to unsatisfactory results the testing charges shall not be paid to the contractor.
- VI)** It shall be Obligatory on Contractor to produce & Submit original copy of the Test result along with receipt of payment made to the Laboratory for releasing any without testing payment towards testing Charges
- VII)** Any short fall in the testing as per frequency, will be recovered at three times testing rates.
- VIII)** Testing charges are mentioned in view of the rates finalized by the Vigilance & quality Control Circle, Pune & it shall be responsibility of contractor to pay the testing charges to the concerned laboratory in accordance with the rates finalized No difference shall be payable to the contractor in case testing charges are revised by the Laboratory.

Additional Condition :-

FORM B-1

**WORKS DIVISION
DR. PDKV AKOLA**

PERCENTAGE RATE TENDER AND CONTRACT FOR WORK.

General Rules And Directions For The Guidance Of Contractors.

- 1) All work proposed to be executed by contract shall be notified in a form of invitation to tender pasted on a board hung up in the office of the University Engineer and signed by the **University Engineer Dr. PDKV Akola**

The form will state the work to be carried out as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specifications, designs and drawings and estimated rates, scheduled rates and any other documents required in connection with the work which will be signed by the University Engineer for the purpose of identification shall also be opened for inspection by contractors in the office of the University Engineer during office hours.

- 2) In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof, and in the event of the absence of any partner it shall be signed on his behalf by a person holding a power of attorney authorizing him to do so.
- 2 (A) (i) The Contractor shall pay along with the Tender the sum of **Rs.3000/-** as and by way of earnest money. The contractor may pay the said amount by forwarding along with the tender a FDR / Bank Guarantee for the said amount for a period of one year issued by a scheduled Bank for the said amount and duly endorsed in the name of **University Engineer Dr. PDKV Akola**. The said amount of earnest money shall not carry any interest whatsoever.
- ii) In the event of his tender being accepted, subject to the provision of sub clause (iii) below, the said amount of earnest money shall be appropriated/adjusted towards the amount of security deposit payable by him under condition of General Conditions of Contract.

- iii) If after submitting the tender, the contractor withdraws his offer or modifies the same or if after the acceptance of his Tender, the Contractor fails or neglects to furnish the balance of security deposit, without prejudice to any other rights and powers of the Government hereunder, or in law, Government shall be entitled to forfeit the full amount of the earnest money deposited by him.
- iv) In the event of his Tender not being accepted, the amount of earnest money deposited by the contractor shall, unless, it is prior there to forfeited under the provisions of sub-clause (iii) above, be refunded to him on his passing receipt therefore.
- 3) Receipt for payments made on account of any work, when executed by a firm should also be signed by all the partners, except where the contractors are described in their tender as a firm, in which case the receipts shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
- 4) Any person who submits a tender shall fill up the usual printed form including the column total according to the estimated quantities stating at what rate he is willing to undertake each item of the work. Tenders which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, will be liable to rejection. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit a separate tender for each. Tenders shall have the name and the number of work to which they refer written outside the envelope.
- 5) The University Engineer Dr. PDKV Akola, open tenders in the presence of any intending contractors who may be present at the time and will enter the amount of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, the contractor shall thereupon, for the purpose of identification, sign copies of the specifications and other documents mentioned in Rule-1. In the event of a tender being rejected, the Divisional Officer shall authorize the Treasury Officer/Bank concerned to refund the amount of earnest money deposited to the contract or making the tender, on his giving a receipt for the return of the money.
- 6) The Officer competent to dispose of the tenders shall have the right of rejecting all or any of the tenders.
- 7) No receipt for any payment alleged to have been made by a contractor in regard to any matter relating to this tender or the contract shall be valid and binding on Government unless it is signed by the University Engineer.

- 8) The memorandum of the work to be tendered for and the schedule of materials to be supplied by the Works Division and their rates shall be filled in and completed by the office of the University Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and completed, he shall request the said officer to have done this before he completes and delivers his tender.
- 9) All work shall be measured net by standard measure and according to the rules and customs of the Works Division without reference to any local custom.
- 10) Under no circumstances shall any contractor be entitled to claim enhanced rates for any items in this contract.
- 11) All corrections and additions or pasted slips should be initialled.
- 12) The measurement of work will be taken according to the usual method in use in the Works Division and no proposal to adopt alternative methods will be accepted. The University Engineer's decision as to what is "the usual method in use in the Works Division" will be final.
 - a) The contractor shall give a list of machinery in their possession and which they propose to use on the work.
 - b) The contractor will have to construct shed for storing materials procured by him at his own cost at the work site having double locking arrangement. The materials will be taken to use in the presence of the department person. No materials will be allowed to be removed from the site of the work.
- 13) The tenders will be liable to be rejected, if while submitting it, the tender or in the case of a firm each partner thereof does not sign or the signature/signatures is/are not attested by a witness in the space provided for the purpose.
- 14) The tendering Contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract, and the value of the work that remains to be executed in each case on the date of submitting the tender.
- 15) Every tenderer shall submit along with the tender information regarding the Income Tax circle, or ward of the district in which he is assessed to Income-Tax, the reference to number of the assessment and the assessment year.
- 16) In view of the difficult position regarding the availability of foreign exchange, no foreign exchange would be released by the department for the purchase of plant and machinery required for the execution of the work contracted for.
- 17) The contractor will have to construct shed for storing controlled and valuable materials required for the work, the materials will then be taken for use in the presence of the

departmental person. No materials also will be allowed to be removed from the site of works.

- 18) The tendering contractor should furnish a detailed statement of works in hand showing the costs of works in hand and the works completed against each with certificate from head of the office concerned.

(19) **Joint Venture:-**

19.1) In case of Joint venture the copy of registered partnership deed and certificate of Registration from Assistant Registrar of firms shall be produced at the time of purchasing of tender form and also in envelope No.1.

19.2) Two or more contractors of any class may combine and tender for a work costing to the amounts upto which each individual contractor or the higher of two limits, if they are of different categories are empowered to tender as per the original registration provided.

- (i) The combination is of the contractor as a whole and not individual partners and.
- (ii) They draw a registered partnership deed and submit a copy thereof to the authority at the time of purchase of the tender forms.

19.3) Whenever the advantage of such combination of two or more contractors is to be taken for quoting for this work where in only the individual contractor of higher category is eligible to quote, it should be ensured that the registered partnership deed should be irrevocable till the completion of this work for which they have combined and till all the liabilities there of are liquidated and the share of the contractor of the higher category should not be less than 50%. Further, the percentage share of the contractor of the lower category in such a partnership/combination, should not be more than his limit of eligibility to quote for works divided by the estimated cost of work put to tender (i.e. when such a percentage is applied to the cost of the work, his share of cost should not exceed his own eligibility limit of tendering for works.)

(19.4) Grouping of plants and machineries owned by individual Contractors executing joint Venture will be considered.

(19.5) Earnest money in form of TDR/FDR issued in the name of Joint-Venture company drawn by the Schedule Bank having branches in Maharashtra and endorsed in the name of **University Engineer, Works Division, Dr. PDKV Akola** for a period of one year only be considered.

If documents submitted by the contractor to the department during the process of tender at any stage / in Envelope No. 1 / at the time of acceptance of tender / while executing the

परिशिष्ट १-

(१) मराठी

नमुना सत्यप्रतिज्ञापत्र (रुपये -/५००च्या स्टॅम्प पेपरवर)

सत्यप्रतिज्ञापत्र (Affidavit)

मी ----- वय वर्ष ----- राहणार -----
----- कंपनीचा मालक असून / या फर्मचा ----- मी, या सत्यप्रतिज्ञा पत्राद्वारे लिहून देतो की --
१. त्या निविदेच्या लिफाफा क्र . या कामासाठी निविदा सादर करित आहे ----- मध्ये जी कागदपत्रे
सादर केली आहे ती खरीयाची मी खाली केलेली , चुका नाहीत , त्या मध्ये कोणत्याही त्रुटी . बरोबर व पूर्ण आहेत ,
असून असे शपथपूर्वक खालील अटी व शर्तीसह मान्य करित आहे दिशाभूल , या कागदपत्रा मध्ये काही चुकीची .
. खोटी व तसेच अपूर्ण माहिती आढळल्यास मी भारतीय दंडसंहिता अंतर्गत कायदेशीर कार्यवाहीस पात्र राहीन , करणारी
. १ यांनी सार्वजनिक बांधकाम - माझ्या कार्यालयाने किंवा माझ्या कर्मचा , मी , जर कंत्राट कालावधी दरम्यान
विभागाला कोणतीही खोटी माहिती किंवा देयका समवेत / तसेच पत्रव्यवहारात खोटी बनावट साहित्य खरेदीची /
. मी भारतीय दंडसंहिता अंतर्गत कायदेशीर कार्यवाहीस पात्र राहीन , कागदपत्रे सादर केली असल्यास
. २ अंतिम देयक देण्याच्या तारखे , जर कंत्राट कालावधी दरम्यान आणि काम समाप्ती नंतर पर्यंत सादर केलेली
कोणतेही कागदपत्रे खोटी मी भारतीय दंडसंहिता अंतर्गत कायदेशीर कार्यवाहीस , बनावट किंवा फसवी आढळल्यास /
. पात्र राहीन
. ३ कोणतीही माहिती , जर काम समाप्ती नंतर दोष दायित्व कालावधी दरम्यान किंवा त्यानंतर कोणत्याही वेळी
ब / किंवा कागदपत्रे खोटी नावटमी भारतीय दंडसंहिता अंतर्गत , फसवी किंवा दिशाभूल करणारी आढळल्यास ,
. कायदेशीर कार्यवाहीस पात्र राहीन

कंत्राटदाराची सही शिक्क /

Annexure -A

Affidavit (On Rs. 100/- Stamp Paper)

I ----- age ----- address -----
----- (Authorized signatory to sign in contract), hereby submit,----- vide
this affidavit in truth, that I am the owner of the contracting firm ----- / authorized
signatory and I am submitting the documents in envelope no 1 for the purpose of scrutiny of the contract.
I hereby agree to the conditions mentioned below.

1. I am liable for action under Indian Penal Code for submission of any false / fraudulent paper / information submitted in envelope no.1
2. I am liable for action under Indian Penal Code if during contract period and defect liability period, any false information, false bill of purchases supporting proof of purchase, proof of testing submitted by my staff, subletting company or by myself, I will be liable for action under Indian Penal Code.
3. I am liable for action under Indian Penal Code if any paper are found false / fraudulent during contract period and even after the completion of contract (finalization of final bill)

(Signature of contractor)

(seal of company)

INTEGRITY PACT

Between

Works Division, Maharashtra Government
having its Office at University Engineer, Work Division,
Dr. P.D.K.V., Akola.

hereinafter referred to as
"WORKS DIVISION",
and

[Insert the name of the Sale Bidder/Lead Partner of Joint Venture]
having its Registered Office at _

(Insert full Address)

and

[Insert the name of the Partner(s) of Joint Venture, as applicable]
having its Registered Office at _

(Insert full Address)

hereinafter referred to as

"The Bidder/Contractor"

Preamble

WORKS DIVISION intends to award, under
laid-down organizational procedures, contract(s) for _

[Insert the name of tile package]

(Signature) _ (Signature) _

(For & On behalf of WORKS DIVISION) (For & On behalf of Bidder/
Partner(s) of

[Joint Venture/ Contractor]

Integrity Pact Page 1 of 8

•

Package and Specification •

Number

[Insert Specification Number of the package]

WORKS DIVISION values full compliance with all

relevant laws and regulations, and the principles of economical use of resources, and
of fairness and transparency in its relations with its Bidders/ Contractors.

In order to achieve these goals, WORKS DIVISION and the above named
Bidder/Contractor enter into this agreement called 'Integrity Pact' which will form a
part of the bid.

It is hereby agreed by and between the parties as under:

Section I - Commitments of WORKS DIVISION

- (1) WORKS DIVISION commits itself to take all measures necessary to prevent corruption and to observe the following principles:
- a) No employee of WORKS DIVISION, personally or through family members, will in connection with the tender, or the execution of the contract, demand, take a promise for or accept, for him/herself or third person, any material or other benefit which he/she is not legally entitled to.
 - b) WORKS DIVISION will during the tender process treat all Bidder(s) with equity and fairness. WORKS DIVISION will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c) PUBLICWORKS DEPARTMENT will exclude from evaluation of Bids its such employee(s) who has any personnel interest in the Companies/ Agencies participating in the Bidding/Tendering process
- (2) If Principle Secretary PWD, Maharashtra Government obtains information on the conduct of any employee of PUBLICWORKS DEPARTMENT which is a criminal offence under the relevant Anti- Corruption Laws of India, or if there be a substantive suspicion in this regard, he will inform its Chief Vigilance Officer and in addition can initiate disciplinary actions under its Rules.

Section II-Commitments of the Bidder/Contractor

- (1) The Bidder/Contractor commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles

(Signature) _____
(For & On behalf of WORKS DIVISION) (For & On behalf of Bidder!
Partner(s) of

(Signature) _____

(Joint Venture! Contractor)

Integrity Pact Page 2 of 8

using his participation in the tender process and during the contract execution:

- a) The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to WORKS DIVISION, or to any of WORKS DIVISION's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange an advantage during the tender process or the execution of the contract.
- b) The Bidder/Contractor will not enter into any illegal agreement or understanding, whether formal or informal with other Bidders/Contractors. This applies in particular to prices, specifications,

- certifications, subsidiary contracts, submission or non-submission of bids or actions to restrict competitiveness or to introduce cartelization in the bidding process.
- c) The Bidder/Contractor will not commit any criminal offence under the relevant Anti-corruption Laws of India; further, the Bidder/Contractor will not use for illegitimate purposes or for purposes of restrictive competition or personal gain, or pass on to others, any information provided by WORKS DIVISION as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder/Contractor of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any, involved directly or indirectly in the Bidding. Similarly, the Bidder/Contractor of Indian Nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the Bidding.
 - e) The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, or committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and/ or with the execution of the contract.
 - f) The Bidder/Contractor will not misrepresent facts or furnish false/forged documents/information s in order to influence the bidding process or the execution of the contract to the detriment of WORKS DIVISION.
- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

(Signature) _

(Signature) _

(For & On behalf of PUBLIC WORKS DEPARTMENT) (For & On behalf of Bidder/
Partner(s) of (Joint Venture / Contractor)

Integrity Pact Page 3 of 8

Section 111- Disqualification from tender process and exclusion from future contracts

- (1) If the Bidder, before contract award, has committed a serious transgression through a violation of Section II or in any other form such as to put his reliability or credibility as Bidder into question, PUBLIC WORKS DEPARTMENT may disqualify the Bidder from the tender process or terminate the contract, if already signed, for such reason.
- (2) If the Bidder/Contractor has committed a serious transgression through a violation of Section II such as to put his reliability or credibility into question, WORKS DIVISION may after following due procedures also

exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder/Contractor and the amount of the damage. The exclusion will be imposed for a minimum of 12 months and maximum of 3 years.

- (3) If the Bidder/Contractor can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, WORKS DIVISION may revoke the exclusion prematurely.

Section IV - Liability for violation of Integrity Pact

- (1) If WORKS DIVISION has disqualified the Bidder from the tender process prior to the award under Section III, PUBLICWORKS DEPARTMENT may forfeit the Bid Guarantee under the Bid.
- (2) If WORKS DIVISION has terminated the contract under Section III, WORKS DIVISION may forfeit the Contract Performance Guarantee of this contract besides resorting to other remedies under the contract.

Section V- Previous Transgression

- (1) The Bidder shall declare in his Bid that no previous transgressions occurred in the last 3 years with any other Public Sector Undertaking or Government Department that could justify his exclusion from the tender process.

(Signature) _

(Signature) _

(For & On behalf of WORKS DIVISION) (For & On behalf of Bidder/
Partner(s) of Joint Venture / Contractor)

Integrity Pact Page 4 of 8

- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section VI - Equal treatment to all Bidders/Contractors

- (1) WORKS DIVISION will enter into agreements with identical conditions as this one with all Bidders.

- (2) WORKS DIVISION will disqualify from the tender process any bidder who does not sign this Pact or violate its provisions.
Section VII - Punitive Action against violating Bidders/Contractors
If PUBLICWORKSDEPARTMENT obtains knowledge of conduct of a Bidder or a Contractor or subcontractor or of an employee or a representative or an associate of a Bidder or Contractor or his Subcontractor which constitutes corruption, or if WORKS DIVISION has substantive suspicion in this regard, WORKS DIVISION will inform the Chief Vigilance Officer (CVO).
- (*) Section VIII - Independent External Monitor of Monitors
- (1) WORKS DIVISION has appointed a panel of Independent External Monitors (IEMs) for this Pact with the approval of Central Vigilance Commission (CVC), Government of India, out of which one of the IEMs has been indicated in the NIT/IFB.
- (2) The IEM is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement. He has right of access to all project documentation. The IEM may examine any complaint received by him and submit a report to Principle Secretary PWD, Maharashtra Government, WORKS DIVISION, at the earliest. He may also submit a report directly to the CVO and the CVC, in case of suspicion of serious irregularities attracting the provisions of the PC Act. However, for ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter shall be referred to the full panel of IEMs, who would examine the records, conduct the investigations and submit report to Principle Secretary PWD, Maharashtra Government, WORKS DIVISION, giving Joint findings.

(Signature) _

(Signature) _

(For & On behalf of WORKS DIVISION) (For & On behalf of Bidder/
Partner(s) of _____ Joint Venture / Contractor)
)

Integrity Pact Page 5 of 8

- (3) The IEM is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Principle Secretary PWD, Maharashtra Government, WORKS DIVISION.
- (4) The Bidder(s)/Contractor(s) accepts that the IEM has the right to access Without restriction to all documentation of WORKS DIVISION related to this contract including that provided by the Contractor/Bidder. The Bidder/Contractor will also grant the IEM, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his documentation. The same is applicable to Subcontractors. The IEM IS under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Subcontractor(s) with confidentiality.
- (5) WORKS DIVISION will provide to the IEM information as sought by him which could have an impact on the contractual relations between WORKS DIVISION and the Bidder/Contractor related to this contract.

Contractor

No of correction

University Engineer

- (6) As soon as the IEM notices, or believes to notice, a violation of this agreement, he will so inform the Principle Secretary PWD, Maharashtra Government, WORKS DIVISION and request the Principle Secretary PWD, Maharashtra Government, WORKS DIVISION to discontinue or take corrective action, or to take other relevant action. The IEM can in this regard submit non-binding recommendations. Beyond this, the IEM has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the IEM shall give an opportunity to WORKS DIVISION and the Bidder/Contractor, as deemed fit, to present its case before making its recommendations to PUBLIC WORKS DEPARTMENT.
- (7) The IEM will submit a written report to the Principle Secretary PWD, Maharashtra Government, WORKS DIVISION within 8 to 10 weeks from the date of reference or intimation to him by PUBLIC WORKS DEPARTMENT and, should the occasion arise, submit proposals for correcting problematic situations.
- (8) If the IEM has reported to the Principle Secretary PWD, Maharashtra Government, WORKS DIVISION, a substantiated suspicion of an offence under relevant Anti- Corruption Laws of India, and the Principle Secretary PWD, Maharashtra Government, WORKS DIVISION has not, within the reasonable time taken visible action to proceed against such offence or reported it to the CVO, the Monitor may also transmit this Information directly to the CVC, Government of India.

(Signature)

(For & On behalf of WORKS DIVISION) (For & On behalf of Bidder!
Partner(s) of (Joint Venture/Contractor)

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- (9) The word 'IEM' would include both singular and plural.
(*) *Tills Section shall be applicable for only those packages to here in the IEMs have been Identified in Section - I : lutation for Bids and/or Clause ITB 9.3 in Section - III: Bid Data Sheets of Conditions of Contract, Volume-I of the Bidding Documents.*

Section IX - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor after the closure of the contract and for all other Bidder's six month after the contract has been awarded.

Section X- Other Provisions

- (1) This agreement is subject to Indian Law Place of performance and jurisdiction is the establishment of WORKS DIVISION. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue / dispute arising under Integrity Pact.
- (2) Changes and supplements as well as termination notices need to be made in writing.
- (3) If the Contractor is a partnership firm or a consortium or Joint Venture, this agreement must be signed by all partners, consortium members and Joint Venture partners.

- (4) Nothing in this agreement shall affect the rights of the parties available under the General Conditions of Contract (GCC) and Special Conditions of Contract (SCC)
- (5) Views expressed or suggestions/ submissions made by the parties and the recommendations of the CVO/ IEM in respect of the violation of this agreement, shall not be relied on or introduced as evidence in the arbitral or judicial proceedings (arising out of the arbitral proceedings) by the parties in connection with the disputes/ differences arising out of the subject contract.
CVO shall be applicable for packages to here in IEM are not Identified in Section IFBI BDS of Condition of Contract, Volume-I, IEM shall be applicable for packages to here in IEM are identified in Section IFB/BDS of Condition of Can tract, volume-l.

(Signature) _

(For & On behalf of WORKS DIVISION) (For & On behalf of Bidder ! Partner(s) of
Joint Venture ! Contractor)

Integrity Pact Page 7 of 8

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- (6) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. **In** this case, the parties will strive to come to an agreement to their original intentions.

(Signature) .

(For & On behalf of WORKS DIVISION)

(Signature) .

(For & On behalf of Bidder/ Partner(s)

of Joint Venture! Contractor)

(Office Seal)

(Office Seal)

Name.,
Designation'
Witness 1:.
(Name & Address).

Name:
Designation'
Witness 1:
(Name & Address) .

Witness 2:
(Name & Address) .

Witness 2:
(Name & Address).

Integrity Pact

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Additional Conditions regarding procurement of Bitumen, Steel and Cement.

As Per Govt of Maharashtra WORKS DIVISION, Marathi Circular No. संकिर्ण-

2018/प्र.क्र.30/यं.बां.सा./ Dt. 27.3.2019

1. Instructions for purchase of Bitumen.

1.1 The bitumen shall be purchased from the Government refineries viz. Hindustan Petroleum Corporation Limited (HPCL)/ Bharat Petroleum Corporation Limited (BPCL)/ Indian Oil Corporation (IOCL), OR any Private Sector Refinery, OR any other Bitumen producing Refinery who are supplying bitumen of the required **Viscosity Grade** as per prescribed standards and Specifications of MORTH.

1.2 The Contractor/Entrepreneur, must adopt the following procedure for purchase of bulk bitumen obtained from Indian oil refineries or other Bitumen producing refineries.

(1) The Contractor/Entrepreneur appointed for bituminous road works in WORKS DIVISION Maharashtra shall be free to procure bulk bitumen from Public sector refinery / Indian refineries in private sector / local authorized suppliers / Authorized supplier - contractors of Private, Semi government and Foreign Refineries in India / Local manufacturer.

(2) Contractors/Entrepreneur and if it is required, the field officers, as per the requirement of project, has to purchase bitumen of VG-30 grade as given below.

Sr.No	Quantity of Bulk Bitumen to be procured	Source of Supply of Bulk Bitumen
1	Upto 500 MT (For the works in which requirement of bitumen is less than 500 MT)	1. Local Bitumen suppliers 2. Authorized Contractors or Suppliers of Private Sector / Public Sector Oil refineries 3. Contractor / supplier who maintain large stock of bitumen.
2	More than 500 MT (For the works in which requirement of bitumen is more than 500 MT)	1. Direct purchase from Public Sector oil refineries 2. Direct purchase from Private Sector oil refineries 3. Contractors / suppliers who procures bulk bitumen from oil refineries and maintains stock of bitumen for the purpose of sale. 4. Supplier who imports foreign bitumen to supply public refineries.
3	Only for experimental basis 1500 Km. Per Public Works Region. (If University Engineer permits)	1. Suppliers / Dealers of foreign refineries importing directly bulk bitumen of Grade VG-30 in India from foreign refineries.

Note – Permission has been granted to use VG-30 grade bulk bitumen procured from foreign refineries for the road works under P.W.D. Government of Maharashtra on experimental basis for the period from 01/04/2019 to 31/3/2020, only for the works to be carried out on experimental basis. (Prior permission of University Engineer is obligatory.)

(3) **Following specifications are obligatory on the Supplier / Contractor for the Viscosity Grade Bitumen procured from private sector or any other oil refineries .**

- (A) Viscosity Grade of Bulk Bitumen used in the work shall be conforming to the norms of **Indian Standard bureau I.S. 73:2013.**
- (B) The contractor/Entrepreneur shall submit CRC (Consignee receipt certificate) and Bill invoices with paid GST, in triplicate. It is binding on all the refineries to mention the name of work on consignee receipt certificate/ Bills for which the bitumen is being used.
- (C) The bitumen producer shall submit the manufacturers laboratory report of Bitumen of concerned batch. This bitumen shall be re-examined in contractors owned laboratory and report shall be submitted to the department.
- (D) All the necessary reports, certificates, purchase orders / Bills / tax invoices /Vouchers shall be submitted in originals.
- (E) For the works costing more than Rs.5.00 Crores, it is mandatory for the concerned contractor to arrange following tests carrying facilities on the work site
 - (i) Penetration test
 - (ii) Softening test
 - (iii) Separation Test
 - (iv) Elastic Recovery test
 - (v) Adultration test.

1.3.2 Instruction Regarding recovery or payment for Price escalation due to increase or decrease in rate of bulk bitumen.

Following instructions shall be followed for payments of price escalation of bitumen used in the work procured from private sector or any other refineries.

- (i) Escalation De-escalation regarding bitumen shall be decided by considering **the lowest rate amongst rates of all Public Sector Refineries on the date of acceptance of tender** and the rate of actual purchase of bitumen from private refinery as on the date of purchase order of bitumen **will be considered as the Star Rate.**
- (ii) If due to **increase** in rate of bitumen contractor/entrepreneur is liable for the refund of escalation amount, then the escalation amount shall be calculated by considering **the lowest rate of Public Sector OR Private Sector refineries.**
- (iii) If due to **decrease** in rate of bitumen contractor/entrepreneur is liable for the recovery of excess amount, then the recovery amount shall be carried out by considering **the highest rate of Public Sector OR Private Sector refineries.**

2. Instruction regarding procurement of Cement.

2.1 The contractor can purchase the cement from any main manufacturer or manufacturer's authorized distributors.

2.2 Instructions regarding the payment of price escalation due to increase in rate and recovery due to decrease in rate of cement.

If the rate of cement hike or reduce, then the additional payment for hike rate of cement or recovery due to reduction in rate shall be calculated by considering the difference of Star Rate mentioned in the tender and the actual rate of purchase of cement on the date of purchase.

3. Instructions for purchase of Steel.

3.1 The contractor can purchase the Steel from any main manufacturer (SAIL, TATA Steel, ISPAT and other main manufacturer as directed by the Government) or their authorized distributors.

3.2 Instructions regarding the payment of price escalation due to increase in rate and recovery due to decrease in rate of Steel..

If the rate of Steel hike or reduce, then the additional payment for hike rate of Steel or recovery due to reduction in rate shall be calculated by considering the difference of Star Rate mentioned in the tender and the actual rate of purchase of Steel on the date of purchase.

Responsibility regarding the quality and quantity test check of construction materials. (Bitumen, steel, cement)

Following procedure shall be adopted for the verifications of the bills of private suppliers of the Steel, Cement, Bitumen and bitumen procured from the private sector refineries and authorized suppliers of Imported Bitumen.

It is binding on the contractor/Entrepreneur to submit Invoices / Bills / Vouchers of construction materials /Bitumen (With GST number) in originals procured from Private Sector Refineries / Public Sector Refineries or authorized Private Importers dealers.

- i) The Contractor/Entrepreneur shall be fully responsible for the authenticity of the invoices / Bills submitted by themselves regarding the purchase of steel, cement and bitumen as mentioned above.
- ii) The contractor/Entrepreneur shall assist and make all arrangements as directed for **quality and quantity check** of various building materials used for the work. (Steel, Cement, Bitumen etc.) University Engineers, Deputy Engineers , Sectional Engineers of the department will not be responsible for the authenticity / genuineness of Invoice regarding the purchase of materials submitted by the contractor along with bill. If the invoices/bills/vouchers regarding the procurement of materials submitted by the contractor/Entrepreneur is found forged / fake or bogus, then criminal offence / FIR will be registered by concerned University Engineer. Even in future against the concerned contractor/Entrepreneur. If the invoices/bills/vouchers are found forged / fake or bogus after finalization of agreement then, in such case also the Criminal offence / FIR against the contractor/Entrepreneur as per Indian Penal Code will be registered by concerned University Engineer.
- iii) University Engineer is empowered to verify the Invoices /Bill / Vouchers submitted by the contractors/Entrepreneur regarding the purchase of materials and in case of any doubt the University Engineers shall initiate field level enquiry of such documents. After due verification of Invoices regarding purchase of construction materials if these or any of these invoices /Bills/Vouchers are found forged / fake or bogus, then Criminal offence against such contractor/Entrepreneur will be registered under Indian Penal Code by concerned University Engineer..

(V) Test of steel Cement and other building materials.

The contractor /Entrepreneur shall assist and make all arrangements as directed for carrying out various quality control tests of steel/cement / other construction materials procured from main producers or their authorized distributors, as per the norms of Indian Standard Bureau for the materials procured by contractor.

The contractor/Entrepreneur shall assist and make all arrangements as directed on the basis of consumption of Steel/ Cement, to carry out required quality control tests as per frequency of Tests chart.

30% quality control tests shall be carried out in the laboratories of WORKS DIVISION and remaining 70% tests shall be carried out in field laboratory installed by the contractor at work site.

If field laboratory is not available then such tests shall be carried out from the laboratory of Engineering Colleges or any other Government laboratory.

(VI) If the contractor/Entrepreneur is found guilty in case of forged /Fake Bills /Invoices/ Vouchers regarding the purchase of materials then criminal action against such contractor/Entrepreneur will be initiated by concerned University Engineer and as per the Law Of Contract the contractor will be black listed forever for works in the WORKS DIVISION (Maharashtra) and will be debarred from participation in any tendering process of the WORKS DIVISION of state of Maharashtra.

(VII) The contractor/Entrepreneur shall assist in grade testing of bitumen at field level.

(VII) The Contractors/Entrepreneurs shall have facility of various bitumen test / quality control test and having modern machinery.

(VIII) **For the works costing Rs. 5.00 Crore and above** - The contractor/Entrepreneur must have ownership of who acquired the required tests equipments for carrying out various bitumen tests, and advanced machinery.

(IX) The Contractor/Entrepreneur shall submit Bills/ Invoices/Vouchers of the utilized Bitumen and other construction materials in quadruplicate (4 Copies) on the Fifth Day of the next month of work completed to the concerned Sub-Division. One copy out of four will be duly signed by University Engineer and returned to the contractor for their Tax and Audit purpose. If contractor fails to submit such invoices then he will be solely responsible for the delay in payment.

(X) The Contractor/Entrepreneur shall submit the abstract of utilized materials in prescribed format (Consumption Statement). The University Engineer & the Divisional Accounts Officer will verify such Consumption Statements and attest the same. Contractor/Entrepreneur shall submit invoices/bills/vouchers as per consumption statement with certificate mentioning that the submitted invoices are not forged or fake. The certificate so given by the contractor will be attested by University Engineer and Divisional Accounts Officers. If such certificate submitted by the Contractor/Entrepreneur is found forged/Fake then Criminal action will be initiated against such contractor.

5. **Instructions regarding utilization of bitumen (V.G.30 Grade Bitumen as per Indian Standard) procured directly from the foreign manufacturing refineries.**

The permission to use VG 30 grade bitumen procured from foreign refineries for the road works under WORKS DIVISION will have to be sought by the contractors/Entrepreneurs from concerned University Engineer in writing before start of work. This permission is only for works taken up on experimental basis. The works on which bitumen procured from foreign refineries is utilized will be under supervision for 2 years for the checking the Performance. the findings will be recorded carefully. The quality of such works will be Tri Party such as I.I.T, V.J.T.I., V.N.I.T etc. during defect liability period.

Following conditions shall be fulfilled for bitumen procured from foreign refineries.

- (1) Bitumen procured from foreign refineries directly shall be conforming to **Indian Standard Bureau Code IS 73:2013**

- (2) Refineries shall submit CRC/Bill Invoice in Triplicate with Test Report of Bitumen of concerned bitumen batch. Also inferences of such tests carried out by the foreign refineries in their owned laboratories as per Indian Standard shall also be submitted by the contractor/Entrepreneur to the department.
- (3) Such Foreign refineries shall have their owned laboratory in India. Contractor/Entrepreneur shall submit test reports carried out in foreign refinery owned laboratory in India after availability of bitumen in India.
- (4) For the purpose of calculating the price variation the lowest of the rate of VG-30 grade bitumen of foreign refinery and the rate of VG-30 grade bitumen of Indian Public Sector refinery on the same date in India, shall be taken. In case of Negative escalation the highest rate of above mentioned rates shall be preferred.
- (5) Foreign Refineries bitumen shall be used after obtaining satisfactory test results from Government approved laboratory. Before utilization of such foreign bitumen on the work, the contractor shall submit the undertaking that "*He will be liable for maintaining the Quality of the works as per the prescribed norms and to carry out the required tests of bitumen satisfactory as the the Indian Standards. If quality of such work is not maintained by the contractor OR required tests results of bitumen are not found satisfactory, then such works will be repaired / rectified by the contractor at his own cost. If he denies then the work will be rectified at the Risk & Cost of the contractor. Recovery of such expenses will be made from him as 'Arrears of Land Revenue'.*"

13. Insurance

- 13.1 The Contractor shall provide Contractor's All Risk Insurance (CAR), in the joint names of the Employer and the contract Insurance cover from the Start Date to the end of the Defects Liability Period in the amounts as deductible stated in the Contract Data for the following events which re due to the Contractor risk.
- a) Loss of or damage of the works, Plant and Materials
 - b) Loss of or damage of Equipment
 - c) Loss or damage of property (except the Works, Plant, Materials and Equipments in connection with the Contract; and
 - d) Personal injury or death of any personnel employed by the contract is during execution and maintenance defect Liability period, employee of PWD, any person using the facility created by the contract during the construction and defect liability period.
- 13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide is compensation to be payable in the types and proportions of currencies required to rectify the loss of damage incurred.
- 13.3 If the Contractor does not provide any of the polices and certificated required, the employee may affect the insurance which the Contractor should have provided and recover premiums the Employer has paid from payments otherwise due to the Contractor of It's payment is due, the payment of the premiums shall be a debt due shall be recoverable from the bills and deposits of the contractor of any work in Maharashtra and if no dues in work than as arrears of land revenue.
- 13.4 Alternations to the terms of Insurance shall not be made without the approval of the Engineer.
- 13.5 Both parties shall comply with any conditions of the insurance policies.

14 Mandatory Testing of Material and Penalty Clause :- It is mandatory on the part of contractor to carry out all the required tests of various construction materials as mentioned in schedule "B" of the tender. If the contractor fails to submit required test result of the various construction materials as mentioned in the items of schedule "B", he will be liable to deposit the amount at penal rate of five times of the amount of particular test which he has not carried out. Contractor will be informed by the engineer-in-charge through letter. On receipt of letter contractor will have to either deposit the said amount or to carry out the required test within ten days. If he again fails to carry out the required test in stipulated time limit, the said test will be carried out by the department and total expenditure incurred on the testing charges plus five times amount of testing charges will be recovered from the contractor's bill.

As this recovery is only due to the negligence on the part of contractor to carry out work as per Tender conditions and University Engineer's decision will be final and binding on the contractor and it can not be challenged by the contractor by way of Appeal ,Arbitration or in the Court of Law.

The Percentage shall be applied to work portion (A) only. The Part "B" of schedule "B" will be intact.

TENDER FOR WORKS.

I/We hereby tender for the execution, for the Governor of Maharashtra (herein before and hereinafter referred to as “Government”) of the work specified in the under written memorandum within the time specified in such memorandum at *()* in figure as well as in words_____

Percent below/above the estimated rates entered in Schedule ‘B’ (Memorandum showing items of work to be carried out) and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule 1 hereof and in Clause 13 of the annexed conditions of contract. And agree that when materials for the work are provided by Government such materials and rates to be paid for them shall be as provided in Schedule ‘A’ hereto.

**Contractor’s Signature
and seal of contractor**

MEMORANDUM

General Description :

- a) If several sub-works are included :
they should be detailed in a separate list - **PROVIDING ELECTRICAL
INSTALLATION TO COMPETATIVE FORUM
AT DR.PDKV.,AKOLA**
- b) Estimated Cost. : **Rs. 1,85,399 /-**
- c) The amount of earnest money to be : Earnest Money **Rs.3000/-**
deposited shall be in accordance with 1 Percent subject to
the provisions of paras 206 and 207 minimum of Rs.
of the M.P.W. Manual.
- d) This deposits shall be in accordance : **Security Deposit 2% Rs. 6000/-**
with paras 213 and 214 of the M.P.W. **(at the time of agreement)**
manual
- Total **Rs. 6000/-**
=====
- e) This percentage where no security : Percentage, if any, to be deducted from
deposit is taken will vary from 5% bills so as to make up the total amount
to 10% according to the requirement required as Security deposit by time, half
of the case. Where security deposit the work as measured by the cost, is done,
is taken as note to Clause 1 of **(2 %) Two percent.**
conditions of contract.
- f) Give schedule where necess- : f) Time allowed for the work, from date of written order,
-ary dates by which various to complete **60 Days** including Monsoon & govt. holiday.
items are to be completed.

Should this tender be accepted I/We hereby agree that this offer shall remain open for acceptance for a minimum period of 45 days from the day fixed for opening the same and thereafter until it is withdrawn by me/us by notice in writing duly addressed to the authority opening the tenders and sent by registered post A.D. or otherwise delivered at the office of such authority.

Treasury challan No. _____ dated _____ or Term Deposit receipt, for period of the year issued by a scheduled bank and duly endorsed in the name of **University Engineer, Dr. PDKV Akola** a sum of **Rs. 3000/-** representing the earnest money is herewith forwarded. The amount of earnest money shall not bear interest and shall be liable to be forfeited to the Government. Should I/We fail to (1) abide by the stipulation to keep the offer open for the period mentioned above or (2) sign and complete the contract documents required by the Engineer and furnish the security deposit it as specific in term (d) of memorandum contained in paragraph I above within the time limit laid down in clause (i) of the annexed general conditions of the contract. The amount of earnest money may be adjusted towards the security deposit or refunded to me/us if so desired by me/us in writing unless the same or any part thereof has been forfeited as aforesaid

I/We have secured exemption from payment of earnest money after executing the necessary bond in favour of the Government a true copy of which is enclosed herewith, should any occasion for forfeiture of earnest money for this work arise due to failure on my/our part to (1) abide by the stipulation to keep the offer open for the period mentioned above - or (2) sign and complete the contract documents and furnish the security deposit as specified in item (d) of the memorandum contained in paragraph I above within the time limit laid down in clause (1) of the annexed General conditions of the contract, the amount payable by me/us may, at the option of the Engineer, be recovered out of the amount deposited in lump sum for securing exemption in so far as the same may extend in terms of the said bond and in the event of the deficiency out of any other money which are due or payable to me/us by the Government under any other contract or transaction of any nature whatsoever or otherwise.

Should this tender be accepted I/We hereby agree to abide by and fulfill all the terms and provision of the conditions of contract annexed hereto so far as applicable and in default to forfeit and pay to government the sum of money mentioned in the said condition. Receipt No. _____ dated _____ from the Government Treasury at in respect of sum of **Rs.3000/-** forwarded representing the earnest money (a) the full value of which is to be absolutely forfeited to Government should I/we not deposit the fully amount of security specified in the above memorandum in accordance with Clause 1 (A) of the said conditions of the contract, otherwise the said sum of **Rs.3000/-** shall be refunded.

Contractor
(Address)

+ **Signature of Contractor**
before submission of Tender.

Dated the

day of

20

(Witness)

+ **Signature of Witness**
to Contractors Signature.

(Address)
(Occupation)

Signature of the Officers
by whom accepted.

The above tender is hereby accepted by me on behalf of Governor of Maharashtra.

**University Engineer,
Works Division, Dr. PDKV Akola,**

Dated the _____ day of _____ 2

CONDITIONS OF CONTRACT

Security Deposits	<p>Clause 1 :-The person/persons whose tender may be accepted (herein after called the contractor, which expression shall unless excluded by or repugnant to the context include his, heirs, executors, administrators, contractor and assigns) shall (A) within 10 days (which may be extended by the Superintending Engineer concerned, upto 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 University Engineer in cash or Govt. securities endorsed to the University 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</p> <p>*+ four percent of all moneys so payable such deduction 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 Two percent, of the total estimated cost of the work, it shall be lawful for Government at the time of making any payment to the contractor for work done under the contract to make up the full amount of two 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 sum 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 whatsoever, and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall, within ten days thereafter, make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposits or any part thereof. The Security Deposit referred to when paid in cash may, at the cost of depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.</p> <p>If the amount of the Security Deposit to be paid in lump sum within the period specified at (A) above is not paid, the Tender/Contract already accepted shall be considered as cancelled and legal step will be taken against the contractor for recovery of the amounts. The amount of</p>
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Contractor

No of correction

University Engineer

	<p>the Security Deposit lodged by a contractor shall be refunded along with the Payment of the final bill, if the date up to which the contractor has agreed to maintain the work in good order is over. If such date is not over, only 50% amount of security deposit shall be refunded along with the payment of the 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 failing or neglecting to complete rectification work within the period up to order, then, subject to provisions of clauses 17 and 20 hereof the amount of Security Deposit retained by Government shall be adjusted towards the excess cost incurred by the department on rectification work *+ This will be the same percentage as that in the tender act (e).</p>
Compensation for delay.	<p>Clause 2 :- The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with, all due diligence (time being deemed to be of the contractor) and the contractor shall pay as compensation an amount as the University Engineer (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tender for every day that work remains uncommenced, or unfinished, after the proper dated. And further to ensure good progress during the execution of the works, the contractor shall be bound in all cases, in which the time allowed for any work exceeds one months to complete.</p> <p>The Programme for completion of work is attached in form of bar chart on page No._____. The contractor is supposed to carry out the work and keep the progress as per bar chart on page No. _____. The contractor should complete the work as per phase period given below, which is arrived from the bar chart.</p> <p>The programme of details process laid down by the University Engineer.</p> <p>The following proportion will usually be found suitable.</p> <p>In $\frac{1}{4}$ time -25% of work $\frac{1}{2}$ time- 50% of work $\frac{3}{4}$time -75% of work</p> <p>120 Days (120 Days including Govt. Holiday & Monsoon Period) . 100% of work.,</p>

Contractor

No of correction

University Engineer

	<p>In the event of the contractor failing to comply with these conditions he shall be liable to pay as compensation an amount equal to one percent, or such smaller amounts as the University 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 of compensation to be paid under provision of this clause shall not exceed 10 percent of the estimated cost of the work shown in the tender. University 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 Engineer/ University Engineer of Assistant Engineer/Sub-Divisional Engineer.</p>
<p>Action when whole of Security Deposit is forfeited.</p>	<p>Clause 3 :- In any case in which under any clause or clauses of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his Security Deposit (whether paid in one sum or deducted by installments) or in the case of abandonment of the work owing to serious illness or death of the contractor or any other cause, the University Engineer on behalf of the Governor of Maharashtra, shall have power to adopt of the following courses as he may deem best suited to the interests of Government.</p> <p>a) To rescind the contract (of which rescission in writing to the contractor under the hand of the University 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.</p> <p>b) To carry out the work or any part of the work departmentally debiting the contractor which 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 departmentally in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of the contract. The certificate of the University Engineer as to all the cost of the work and other allied expenses so included and the value of the work so done departmentally shall be final and conclusive against the contractor.</p> <p>c) To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted out of his hands and to give it to another contractor to</p>

Contractor

No of correction

University Engineer

	<p>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 cost of the work executed by the new contract agency will be debited to 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 University 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 the value of the work so done shall be final and conclusive against the contractor.</p> <p>In case the contract shall be rescinded under clause (a) above, the contractor shall not be entitled to recover or be paid any sum for any work thereto for actually performed by him under this contract unless and until the University Engineer shall have certified in writing the performance of the such work and the amount payable to him in respect thereof 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 and other allied expenses exceeding the value of such work credited to the contractor, the amount of excess value shall be deducted from any money due to the contractor by the Govt. under the contract or otherwise. Howsoever or from his security deposit or the sale proceeds thereof provided howsoever, that the contractor shall have no claim against Government even if certified value of the work done departmentally or through a new contractor except the certified cost of such work and allied expenses provided always that whichever of the three courses mentioned in clause (a), (b) or (c) is adopted by the University Engineer the contractor shall have no claim to compensation for any loss sustained by him reason of him having no claim to compensation for any materials, or entered into engagement or made any advance on account of or with a view of the execution of the work or the performance of contract.</p>
<p>Action when the progress of any particular portion of the work is unsatisfactory.</p>	<p>Clause 4 :- If the progress of any particular portion of the work is unsatisfactory the Executive Engineer shall not withstanding the general progress of the work is satisfactory in accordance with clause 2, be entitled to take action under clause 3(b) after giving the contractor 10 days notice in writing and the contractor will have no claim for compensation for any loss sustained by him owing to such action.</p>

Contractor

No of correction

University Engineer

<p>Contractor remains liable to pay compensation if action not taken under clause 3 & 4 Power to take possession of or require removal of or sell contractor's plant.</p>	<p>Clause 5 :- In any case in which any of the powers conferred upon the Executive Engineer by Clause 3 and 4 hereof shall have become exercisable and the same shall not been exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall not withstanding be exercisable in any future case of default by the contractor for which by under any clause or clauses hereof 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 (a) or (c) clause (3) he may, if he so desires, take possession of all or any tools plant, materials and stores in or upon the works or the site thereof or belonging to the Contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing, for the same in account at the contract rates, or in case of contract rates not being applicable at current market rates, to be certified by the University Engineer whose certificate thereof shall be final. In the alternative the University Engineer may after giving notice in writing to the contractor or to his clerk of the works, foreman or other authorised agent require him to remove such tools, plant, materials or stores from the premises within a time to be specified in such notice and in the event of contractor failing to comply with any such requisition the University Engineer may remove them at the contractor's expenses or sale them by auction or private sale, on account of the contractor at his risk in all respects, and the certificate of the University Engineer as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale be final and conclusive against the contractor.</p>
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Contractor

No of correction

University Engineer

Extension of time	<p>Clause 6 :- If the Contractor shall desire an extension of the time for completion of the work on the ground of his having unavoidably hindered init execution or on and the other ground, he shall apply in writing to the University Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date to which he was hindered as aforesaid or on which the cause for asking extension occurred, whichever is earlier and the University Engineer may, if in his opinion there are reasonable ground for granting an extension, grant such extension as he thinks necessary or proper. The decision of the Chief Engineer P.W D. Region Amravati in this matter shall be final.</p> <p>Clause 6-A :- In the case of delay in handing over the land required for the work due to unforeseen cause, the contractor shall not be entitled for any compensation whatsoever from the Government on the ground that the machinery or the labour was idle for certain period. Contractor may, however apply for extension of time limit which may be granted on the merit of the case.</p>
Final Certificate.	<p>Clause 7 :- On completion of the work the contractor shall be furnished with a certificate by the University Engineer (Hereinafter called the Engineer-in-charge) in such completion but no 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 rubbish and shall have cleaned of the dirt from all wood work, doors, windows, floors or other parts of any building, in or upon which the work has been executed, or on which he may have had possession for the purpose of executing the work nor until the work shall have been measured by the Engineer-in-charge or where the measurements have been taken by his subordinates until they have received the approval of the Engineer-in-charge or where the measurements have been taken by his subordinates until they have received the approval of the Engineer-In-Charge, the said measurements being binding and conclusive against the contractor. If the contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding, surplus material and rubbish, and cleaning off 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 of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall forthwith pay the amount of all expenses so</p>

Contractor

No of correction

University Engineer

	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.
Payments on intermediate Certificate to be regarded as advances.	Clause 8 :- No payment shall be made for any work estimated to cost less than Rs. One thousand. After the whole of the said work shall have been completed ,a certificate of completion shall be given. But in the case of the works estimated to cost more than Rs. One thousand, the contractor shall on submitting a monthly bill therefore, be entitled to receive payment proportionate to the part of the work then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum payable shall be final and conclusive against the contractor. All such intermediate payment shall be regarded as payments by way of advance against the final payments only and not preclude the Engineer-in-charge from requiring any bad unsound, imperfect or unskillful work to be removed and taken away and reconstructed, or reacted, nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof, in any respect or the occurring of any claim, nor shall it conclude, determine or affect in any way the powers of the Engineer-in-charge as to final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect 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 measurement and of the total amount payable for the work shall be final and binding on all parties.
Payments at reduced rates on account of items of work not accepted as completed to beat the discretion of the Engineer-in- charge.	Clause 9:- The rates for several items of work estimated to cost more than Rs. One Thousand 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 the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in preparation of final or on account bills.

Contractor

No of correction

University Engineer

<p>Bill to be submitted monthly.</p>	<p>Clause 10 :- A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous month, and 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 10 days from the presentation of the bill. If the contractor does not submit the bill within time fixed as aforesaid, the Executive-in-charge may depute a subordinate to measure up the said work. The presence of the contractor or his duly authorised agent whose counter signature to the measurement list shall be sufficient warrant, and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.</p>
<p>Bill to be on printed form.</p>	<p>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 condition and not mentioned or provided for in the tender, at the rate hereinafter provided for such work.</p>
<p>Store supplied by Government.</p>	<p>Clause 12 :- If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the P.W.D. store or if it is required that the contractor shall use certain 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 this contract specified in the schedule or memorandum (hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purposes of the contract only, and the value of the full quantity of materials and stores so supplied shall be set off or reduced from any sums then due, or otherwise, or from the security deposit, or the proceeds of sale thereof, if the deposit is held in Government securities the same or a sufficient portion thereof shall in that case be sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Government and shall on no account be removed from the site of the work and shall at all times be open to inspection by the Engineer-In-Charge. Any such materials unused and is perfectly in good condition at the time of completion or determination of the contract shall be returned to the WORKS DIVISIONs store, if the Engineer-In-Charge so requires by a notice in writing given under his</p>

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	hand, but remaining unused by him or for any wastage in or damage thereto.
Work to be executed in accordance with specifications, drawings, orders etc.	Clause 13 :- The contractor shall execute the whole and every part of the work like manner and both as regards materials and every other respect in strict accordance with specifications. The contractor shall also confirm exactly fully and faithfully to the designs, and drawings 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 at the site of work during office hours. The contractor will be entitled to receive three sets of contract drawings 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 working drawings if required by him, shall be supplied at the rate of Rs. 1000/- per set of contract drawing and Rs. 1000/- per working drawing except where otherwise specified.
Alterations in specifications & designs not to invalidate contract. Rate for works not entered in the estimate on schedule of rate of the district.	Clause 14 :- The Engineer-in-charge shall have power to make any alterations in, or additions to or drawing design and instructions that may the original specifications, 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 him in writing signed by the Engineer -in-charge and such alterations shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as a part of the work shall be carried out by the contractor in the same conditions in all respects on which he agreed to the main work and at the same rates as per specified in the tender for the main work. And if the additional or altered work, includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in schedule of rates of the division or at the rate mutually agreed upon rates between the Engineer-in-charge and the contractor which ever 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 7 days of the date of receipt by him of order to carry out work inform the Engineer-in-charge of the rates which if his intention to charge for such class of work, and arrange to carry it out in such manner as he may consider advisable, provided always that if the contractor shall commence work or incur any

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<p>Extension of time in consequence of additions or alterations.</p>	<p>expenditure in regard thereto before the rate shall have been determined as lastly here in before mentioned then in such case he shall only entitled to be paid in respect if 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 the Superintending Engineer of the Circle will be final.</p> <p>Where however, the work is to be executed according to the designs, drawings, and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings, and specifications to the tender.</p> <p>The time limit for the completion of work shall be extended in the proportion that the 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 be conclusive.</p>
<p>No claim to any payment or compensation for alteration in or restriction of work</p>	<p>Clause 15 :- (1) If at any time after the execution of the contract documents, the Engineer shall for any reason whatsoever (other than default on the part of the contractor and for which Government is entitled to rescind the contract) desire that the whole or any part of the work specified in the tender should be suspended or that the whole or part of the work should not be carried out at all he shall give 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 work wholly or in part as required, after having due regard to the appropriate state at which the work should be suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof injury to the work already done or endanger the safety thereof 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 here-in-after.</p> <p>(2) Where the total suspension of the work ordered as aforesaid continued for a 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 days prior</p>

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	<p>notice in writing to the Engineer, within 30 days of the expiry or expiry of the said period of 90 days, of such intention and requiring the Engineer to record the final measurements of the work already done and to pay the final bill. Upon given such notice, the contractor shall be deemed to have been discharged from his obligation to complete the remaining unexecuted work under this contract on receipt of such notice the Engineer shall proceed to complete the measurement and make such payment as may be finally 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 of the contractor to any further compensation under the remaining provision of this clause.</p> <p>(3) Where the Engineer requires the 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 day of the resumption of the work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery rendered idle on the site or on account of his having, have to pay the salary or wages of labour engaged by him during the said period of suspension. Provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate of such suspension or in respect of any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.</p> <p>(4) In the event of</p> <p>i) Any total stoppage of work on notice from the Engineer under sub-clause (1) in that behalf.</p> <p>ii) Withdrawal by the contractor from the contractual obligation to complete the remaining unexecuted work under sub-clause (2) on account of continued suspension of work for a period exceeding 90 days.</p> <p>iii) Curtailment in the quantity of an item or items originally tendered on account of any alteration, omission or substitutions in the specifications, drawings, designs or instructions under clause 14(1) where such curtailment exceeds 25% at the rates for the items specified in the tender is more than Rs. Five thousand/-</p> <p>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 obligation under the contract on account of the continued suspension of the work or (iii) notice under clause 14(1) resulting such curtailment or</p>
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	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. Provided however such rates shall in no case exceed the rates at which the same were acquired by the contractor. The Government shall thereafter take over the material so offered, provided the quantities offered are not in excess of the requirement of the unexecuted work as specified in the accepted tender and are of quality and specification approved by the Engineer.
Time limit for unforeseen claims.	Clause 16 :- Under no circumstances whatsoever shall the contractor be entitled to any compensation from Government on any account unless the contractor shall have submitted claim in writing to the Engineer-in-charge within one month of the cause of such claim occurring.
Action, compensation payable in case of bad work.	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 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 contractor, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then notwithstanding the fact that 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 1% on the amount of the estimate for every day not exceeding 10 days, during which the failure so continues 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 expense in all respects of the contractors should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix therefore.

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<p>Work to be open to Inspection. Contractor or responsible agent to be present.</p>	<p>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 sub--ordinates, and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinates to visit the works shall have been given to the contractor, either himself be present to receive order and instructions or have a responsible agent duly accredited in writing, present for the purpose. Orders given to the contractor's duly authorised agent shall be considered to have the same force and effect as if they had been given to the contractor himself.</p>
<p>Notice to be given before the work is covered up.</p>	<p>Clause 19 :- The Contractor shall give not less than 5 days notice in writing to the Engineer-in-charge or his subordinates in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement 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.</p>
<p>Contractor liable for damage done and for imperfection.</p>	<p>Clause 20 :- If during the period of 24 Months from the date of completion as certified by the Engineer- in-charge pursuant to clause 7 of the contract, in the opinion of the University Engineer the said work is defective in any manner whatsoever the Contractor shall forthwith on receipt of notice in that behalf from the University Engineer, duly commence execution in every respect all the work that may be necessary for rectifying and 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 University Engineer. If the work or part of work is defective beyond repair, the contractor has to reconstruct the work / part of work as directed by University Engineer P.W.Division, Akola. In the event of the Contractor failing or neglecting to commence execution of the said rectification work or reconstruct work within the period prescribed (not</p>

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	<p>more than 3 months) therefore in the said notice and/or to complete the same as aforesaid as required by the said notice, the Executive Engineer may get the same executed and carried out departmentally or by any other agency at the risk, on account and at the cost of the Contractor. The Contractor shall forthwith on demand pay to the Government the amount of such cost, charges 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 revenue and in the event of the Contractor failing or neglecting to pay the same on demand as aforesaid 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 therefore become payable by the Government to the Contractor either in respect of the said work or any other work whatsoever or from the amount of security deposit retained by Government.</p>
<p>Contractor to supply plant, ladders, scaffolding etc.</p>	<p>Clause 21 :- The contractor shall supply at his own cost all materials (except such special materials if any) as may be supplied from the WORKS DIVISION Stores, in accordance with the contract), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and any temporary works which may be required for the proper execution of the work, in the original, altered or substituted from, whether included in the specification or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter on which under these conditions he is entitled to be satisfied, or which he entitled to require together with carriage therefor, to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out work, and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials. Failing this the same may be provided by the Engineer-in-charge at the expenses of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the Public from accident and shall also be bound to bear the expenses of</p>

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	defence every suit, action or other legal proceedings at law that may be brought by any person for injury sustained owing to the neglect of the above precautions, and to pay damages and cost such person or which may with the consent of the contractor be paid in compromising any claim by any such person.
Works Scaffolding	<p>Clause 21-A :- The contractor shall provide suitable scaffolds and working platforms, gangways and stairways and shall comply with the following regulations in connection therewith.</p> <ul style="list-style-type: none"> a) Suitable scaffolds shall be provided for workman for all work that cannot be safely done from a ladder or by other means. b) A scaffold shall not be constructed, taken down or substantially altered except. <ul style="list-style-type: none"> i) Under the supervision of a competent and responsible person, and ii) As far as possible by competent workers possessing adequate experience in this kind of work. c) All scaffolds and appliance connected therewith and all ladders shall <ul style="list-style-type: none"> i) be of sound material ii) be of adequate strength having regard to the loads and strains to which they will be subjected, and iii) be maintained in proper condition d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use. e) Scaffolds shall not be overloaded and as far as practicable the load shall be evenly distributed. f) Before installing lifting gear on scaffolds special precaution shall be taken to ensure the strength and stability of the scaffolds. g) Scaffolds shall be periodically inspected by a competent person h) Before allowing a scaffold to be used by his workmen the contractor shall check where the scaffold has been erected by his workmen or not take steps to ensure that it complies fully with the regulations herein specified.

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	<p>i) Working platforms, gangways shall</p> <p>i) be so constructed that no part thereof can sag unduly or unequally.</p> <p>ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping, and</p> <p>iii) be kept free from any unnecessary obstructions.</p> <p>j) In the case of working platforms, gangways, working places and stairways at a height exceeding 3 meters. (to be specified).</p> <p>i) every working platform and every gangways shall have to be closely boarded unless other adequate measures are taken to ensure.</p> <p>ii) every working platform and gangways, shall have adequate width and.</p> <p>iii) every working platform, gangways, working places, stairway shall be suitably fenced.</p> <p>k) Every opening in the floor of the building or in working platform shall except for the time and to the extent required to allow the access or persons or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.</p> <p>l) When persons are employed on a roof where there is danger of falling from a height exceeding 3 meters suitable precaution (to be prescribed) shall be taken to prevent the fall of persons or materials.</p> <p>m) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working place.</p> <p>n) Safe means of access shall be provided to all working platforms and other working places.</p>
	<p>Clause 21 B :- The contractor shall comply with the following regulations as regards the hoisting appliances to be used by him.</p> <p>(a) Hoisting machines and tackle, including their attachment, anchorages and supports shall</p>

	<ul style="list-style-type: none"> (i) be of good mechanical construction, sound material and adequate strength and free from patent defect and (ii) be kept in good repaired and in good working order <p>(b) Every rope used in hoisting or lowering material or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.</p> <p>(c) Hoisting machines and tackle shall be adequately tested after erected on the site and before and be re-examined in position at intervals to be prescribed by the government.</p> <p>(d) Every chain, ring hook shackle, swivel and pulley block used in hoisting or lowering of materials or as a means of suspension shall be periodically examined.</p> <p>(e) Every crane driver or hoisting appliances operator shall be properly qualified.</p> <p>(f) No person who is below the age of 21 years shall be in control of any hoisting machine, including any scaffolds, which give signals to the operator.</p> <p>(g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel and pulley block used on hoisting or lowering or as a means of suspension the safe working load shall be ascertained by adequate means.</p> <p>(h) Every hoisting machine and all gear referred to in the preceding regulation shall be plainly marked with the safe working load.</p> <p>i) In the case of hoisting machine having available safe working load, each safe working load and the condition under which it is applicable shall be clearly indicated.</p> <p>j) No part of any hoisting machine or of any gear referred to in regulation of above shall be loaded beyond the safe working load except for the purpose of testing.</p> <p>k) Motors, gearing transmissions, electric wiring</p>
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	<p>and wiring and other dangerous part of hoisting appliances shall be provided with efficient safe guards.</p> <p>l) Hoisting appliances shall be provided with such means as will reduce to a minimum risk of the accidental descent of the load.</p> <p>m) Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displace.</p>
Measure for prevention of fire.	Clause 22 :- The contractor shall not set fire to any standing jungle, tree, brush wood or grass without a written permit from the University Engineer. When such permit is given and also in all cases when destroying cut or dug up trees, brush wood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property. The contractor shall make his own arrangements for drinking water for the labour employed by him.
Liability of contractors for any damage done in or outside work area.	<p>Clause 23 :- Compensation for all damage done intentionally or unintentionally by contractor's labour whether in or beyond the limits of Govt. property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as he may appoint and the estimates of the Engineer-in-charge subject to the decision of the Superintending Engineer on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand failing which the same will be recovered from the contractor as damages in the manner prescribed in clause 1 or deducted by the Engineer -in-charge from any sums that may be due to or become due from government to the contractor under this contract or otherwise.</p> <p>The Contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any person for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall also pay any damages and cost that may be awarded by court in consequence.</p>
Employment of female labour.	Clause 24 :- The employment of female labourers on works in the neighborhood of soldiers barracks should be avoided as far as possible.
Work on Sunday.	Clause 25 :- No work shall be done on a Sunday without the sanction in writing of the Engineer-in-charge.

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<p>Work not to be sublet.</p> <p>Contract may be rescinded and Security Deposit forfeited for subletting it without approval or for bribing a Public Officer or Contractor becomes insolvent.</p>	<p>Clause 26 :-The contract shall not be assigned or sublet without the written approval of the Engineer--in-charge. And if the contractor shall assign or sublet his contract, or attempt so to do, or become insolvent or commence any proceedings to be adjudicated and insolvent or make any composition with his creditors, or attempt so to do the Engineer- in- charge may be notice in writing, rescind the contract. Also if any bribe, gratuity, gift, loan, perquisite, regard or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the contractor or any of his servants or agents to any public officer or person in the employment, of the 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 Engineer-in-charge may notice in writing rescind the contract. In the event of a contract being rescinded, the Security Deposit of the contractor shall there upon stand forfeited and be absolutely at the disposal of the Government and 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 or be paid for any work therefore actually performed under the contract.</p>
<p>Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss</p>	<p>Clause 27 :- All sums payable by a contractor byway 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 damage sustained and whether any damage has or has not been sustained.</p>
<p>Changes in the constitution of the firm to be notified.</p>	<p>Clause 28 :- In the case of a 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.</p>
<p>S.E/University Engineer is the Authority of Direction and control of work</p>	<p>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 and in what manner they are to be commenced and from time to time carried on.</p>

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<p>Work to be under direction and control of Superintending Engineer.</p>	<p>Clause 30 :- 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 specifications, designs, drawings and instruction herein before mentioned and as to the quality of the workmanship or material used on the work, or as to any other question, claim, right, matter or things whatsoever, in any way arising out of, or relating to the contract designs, drawing, 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.</p> <p>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</p> <p>a) The accepted value of the contract exceeds Rs. 10/- lakhs (Rupees Ten Lakhs).</p> <p>b) Amount of claim is not less than Rs. 1.00 Lakh (Rupees One lakhs)</p> <p>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, WORKS DIVISION who, if convinced that prima-facie the contractors claim rejected by the 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 put up to the Standing Committee at Government level for suitable decision.</p>
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<p>Store of European or American manufacture to be obtained from the Govt.</p>	<p>Clause 31 :- The contractor shall obtain from the P.W.D. stores all stores and articles of European or American manufacture which may be required for the work, or any part of the work or in making up any articles required therefore or in connection therewith 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 Engineer-in-charge will be debited to the contractor in his account at the rates shown in the Schedule in form "A" attached to contract, and if they are not entered in the said Schedule, they shall be debited to him at cost price which for the purpose of this contract shall include the cost of carriage and all other expenses whatsoever, which may have to be incurred in obtaining delivery of the same as the stores aforesaid.</p>
<p>Lump sums in estimates.</p>	<p>Clause 32 :- When the estimate on which a tender is made includes lump sums in respect of parts of the work the contractor shall be entitled to payment in respect of items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not in the opinion of the Engineer-in-charge capable of measurement the Engineer-in-charge may at his discretion pay the lump sum amount entered in the estimate, and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of this clause.</p>
<p>Action where no specifications.</p>	<p>Clause 33 :-In the case of any class of work for which there is no such specification as mentioned in Rule-1 such work shall be carried out in accordance with the Divisional Specifications, and in the event of there being no Divisional Specifications, then in such case the work shall be carried out in all respects in accordance with the instruction and requirement of the Engineer-in-charge.</p>
<p>Definition of work.</p>	<p>Clause 34 :-The expression 'works' or 'work' where used in these conditions shall, unless there be something in the subject or context repugnant to such construction be construed to mean the work or the works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original, altered, substituted or additional.</p>

Contractor's percentage whether applied to net or gross amount of bill.	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 any stock issued.
Quarry fees & royalties.	Clause 36 :- All quarry fees, royalties, and ground rent for stacking materials if any, should be paid by the contractor.
Compensation under Workmen's Compensation Act.	<p>Clause 37 :- The contractor shall be responsible for and shall pay compensation to his workmen payable under the Workmen's Compensation Act. 1923 (VIII of 1923), (herein after called the said Act) for injuries caused to the workmen's. If such Compensation is payable and or paid by Government as principal under the subsection (1) of section 12 of the said Act on behalf of the contractor, this 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.</p> <p>Clause 37-A :- The contractor shall be responsible for and shall pay 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 Government from any amount due or that may become due to the contractor</p> <p>Clause 37-B :- The contractor shall provide all necessary personal safety equipment and first-aid apparatus available for the use of the persons employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulation in connection therewith -</p> <p>a) The worker 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.</p> <p>b) When work is carried on in proximity to any place where there is no risk of drawing, all necessary equipment's shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.</p> <p>c) Adequate provision shall be made for prompt first-aid treatment for all injuries likely to be sustained during the course of the work.</p> <p>Clause 37-C :- The contractor shall duly comply with the provision of 'The Apprentices Act. 1961 (III of 1961), the rules made there under and the orders that may be issued from</p>

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	time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all the liabilities and penalties provided by the said Act and said Rules’.
Claim for quantity of works entered in the tender or estimate.	<p>Clause 38 :- (1) Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rates shall be permitted in respect of any of the items so long as, subject to any special provision contained in the specification prescribing a different percentage of permissible variation, the quantity of the items does not exceed the tender quantity by more than 25% and so long as the value of the excess quantity beyond this limit, at the rate of the items specified in the tender, is not more than Rs. 5,000/-.</p> <p>2) The contractor shall if ordered in writing by the Engineer-in-charge so to do also carry out any quantities in excess of the limit mentioned in Sub-Clause (1) here of on the same conditions as and in accordance with the 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 market, the said rates being increased or decreased as the case may be, by the percentage which the total tendered amount bears to the estimate cost of the work as put to tender, based upon the Schedule of rates applicable to the year in which the tenders were invited (for the purpose of operation of this clause, this cost shall be taken to be Rs. 1,85,399 /-</p> <p>3) Claim arising out of reduction in the tendered quantity of any item beyond 25 percent will be governed by the provisions of clause 15 only when the amount of such reduction beyond 25% at the rate of the item specified in the tender is more than Rs. <u>5,000-00.</u></p>
Employment of female or other labour.	Clause 39 :- The contractor shall employ any famine, convict or other labour of a particular kind of class if ordered in writing to do so by the Engineer-in-charge.
Claim for compensation for delay in starting work.	Clause 40 :- No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land and in the case of the clearance work of any delay in according to sanction estimates.

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Claim for compensation for delay in the execution of work.	Clause 41 :- No compensation shall be allowed for any delay in execution of the work on account of water standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil excavation in mud, subsoil water or water standing in borrow pits and no claim for an extra rate shall be entertained, unless otherwise expressly specified.
Extra Payment	Clause 42 :- 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 his subordinate in charge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.
Minimum age of persons employed, the employment of donkey and/or other animals and the payment of fair wages.	<p>Clause 43 :-</p> <ul style="list-style-type: none"> (i) No contractor shall employ any person who is under the age of 18 years. (i) No contractor shall employ donkeys or other animals with breeching of string or thin rope. The breeching must be at least 3 inches wide and should be of tape (Newar). (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 authorised to remove from work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by the Government for any delay caused in the completion of the work by such 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 and reasonable, the dispute shall be referred without delay to the University Engineer who shall decide the same. The decision of the University Engineer, shall be conclusive and binding on the contractor, but such decision shall not in any way affect the condition in the contract regarding the payment to be made by the Government at the sanctioned tender rates. (vi) The contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged on large work in urban areas.

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Method of Payment.	Clause 44 :- Payment to contractors shall be made by cheques drawn on any treasury within the Division convenient to them. provided the amount exceed Rs. 10/- Amount not exceeding Rs.10/- will be paid in cash.
Acceptance of conditions compulsory before tendering the work.	Clause 45 :- Any contractor who does not accept these conditions shall not be allowed to tender for works.
Employment of scarcity labour.	Clause 46 :- If Government declare a state of scarcity or famine to exist in any village situated within 10 miles of work, the contractor shall employ upon such parts of the work as suitable for unskilled labour any person certified to him by the University Engineer or by any person to whom University Engineer may have delegated this duty in writing to be in need of relief and shall be bound to pay to such persons wages not below minimum which may arise in connection with the implementation of this clause shall be decided by the University Engineer whose decision shall be final and binding on the contractor.
GST Shall not be included in bidding offer and will be paid separately.	47 (A) – “The rates quoted by the Contractor shall be deemed to be inclusive of the labour welfare cess and other taxes (other than GST) that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law. 1. Bidder shall quote his rate excluding GST. 2. GST shall be payable on the accepted contract value 3. GST Shall be paid to contractor on the amount of bill of work done as per prevailing rate of GST during the period of work done.
DELETED	Clause 48 :- The rates to be quoted by the contractor must be inclusive of Sales Tax. No extra payment on this account will be made to the contractor. Clause 48 A:- The contractors are bound to pay to the labourers wages according to the Minimum Wages Act, 1948

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	applicable to the Zone in Accordance with the order issued in Government PWD/Circular No. MWA/1063, dated 7-12-1968.
	<p>Clause 49 :- In case of materials that remain surplus with the contractor for those issued for the work contracted from the date of ascertaining of the materials being surplus be taken as the date of sale for the purpose of sales tax and the sale tax will be recovered on such sale.</p> <p>Clause 49-A :- Deleted</p>
Employment of Labours	<p>Clause 50 :- The contractor shall employ the unskilled labour to be employed by him on the said work only from locally available labours and shall give preference to those persons enrolled under Maharashtra Government Employment and Self Employment Departments Scheme. Provided, however that if the required unskilled labours are not available locally, the contractor shall in the first instance employ such number of persons as is available and thereafter may with previous permission. In writing of the University Engineer-in-charge of the said work, obtain the rest of requirement of unskilled the labour from outside the above scheme.</p>
	Clause 51 :- Deleted
Land Charges	<p>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</p> <p>(1) Material and or stores supplied/issued hereunder by the Government to the contractor.</p> <p>(2) Hire 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 the advance have been given by the Government to the contractor shall be deemed to be arrears 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 land revenue.</p>

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<p>Labour Health</p>	<p>Clause 55 :-</p> <p>A) The anti-malaria and other health measures shall be as directed by the Joint Director (Malaria and Filariasis) of Health Services, Pune.</p> <p>B) Contractor shall see that Mosquito breeding conditions are not created so as to keep vector population for minimum level.</p> <p>C) Contractor shall carry out anti malaria measures in the area as per guidelines prescribed under National Malaria (M & F) of health Services, Pune.</p> <p>D) In case of a default in carrying out prescribed anti malaria measures resulting in increase in malaria incidence contractor shall be liable to pay to Government the amounts spent by Govt. on anti malaria measures to control the situation in addition on fine.</p> <p>E) Relations with Public Authorities : The contractor shall make sufficient arrangements for draining away the sludge water as well as water coming from the bathing and washing places and shall dispose off this water in such a way as not to cause</p>
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	any substance. He shall also keep the premise clean by employing sufficient number of sweepers. The contractor shall comply with all rules, regulations, bylaws and directions given from time to time by any local or public authority in connection with this work and shall pay fees or charges which are leviable on him without any extra cost of Government. (Vide Govt. Circular No. CST-1086/CR-243/Ka-Bldg-2/Mantralaya Mumbai 1000032 dt. 11.8.87)
Govt Act's	Clause 56 :- A contractor shall comply with all the provisions of the Apprentices Act. 1961 and the Rules and Orders issued there under from time to 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 an pecuniary liability arising on account of any violation by him of the provision of the (vide Govt. Circular No. CST - 1086/CR-243 Ka-Building-2/Mantralaya, Bombay-400 032, dated 11 Sept. 1987).
Taxes	Clause 57 :- The tender rates are inclusive of all taxes, rates, and cesses and are also inclusive of s leviable tax in respect of sale by transfer of property in goods involved in the execution of a work contract under the provision of Rule 58 Maharashtra Value added Tax Act 2005, for the purpose of levy of Tax"
	Clause 58 :- In case of materials which become surplus with the contractors from those issued for the work contracted for the date of ascertainment of the materials as being surplus will be taken as the date of sale for the purpose of sales tax and sales tax will be recovered on such sale.
Quality Assurance and Maintenance	<p>Clause 59 :-<u>Quality Assurance and Maintenance Manual</u>:-</p> <p>ANNEXURE "A" : (Annexure to the PWD, Circular No. CAT-1091/CR-60-Bldg-2 Dt. 14th October 1991, regarding incorporating additional condition for Quality Assurance and Maintenance Manual).</p> <p>To ensure the specified quality of work which will also include necessary survey temporary works etc. the contractor shall prepare a quality assurance plan and get, the same provided from the Engineer-In-Charge within one month from the date of work order. For this contractor shall</p>

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	<p>submit an organisation chart of his technical personnel to be deployed on the work alongwith their qualification, job descriptions defining the functions of reporting supervising inspecting and approving. The contractor shall also submit a list of tools equipment 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 organisation chart and the list of machinery/ equipment etc. as per the direction of the Superintending Engineer and shall deploy the persons and equipment on the fields as per the approved chart and the list respectively. The Contractor shall submit written method statements dealing his exact proposal of execution of the work in accordance with the specification. He will have to get these approved from the Engineer-In-Charge. The quality of the work shall be properly documented through certificate, records, checks list, and Log Book of results etc. such records shall be complied from the beginning of the work and be continuously updated the supplementary and this will be the responsibility of the contractor. The forms should be got approved from the University Engineer-In-Charge.</p> <p>2) Where the work is to be done on lump-sum basis on contractors designs. The contractor shall also submit a maintenance manual giving procedure. For maintenance, with the periodicity of maintenance works including inspection tools of the equipments to be used means of accessibility for all parts of the structure. He shall also include in the manual, the specification for maintenance works that would be appropriate for his design the technique of construction. This manual shall be submitted within the contract period.</p>
<p>Materials</p>	<p>Clause 60: It is obligatory on the part of agency to procure R.C.C. pipe (ISI marked) required for the work from the M.S.S.I.D.C. only. The proof of such procurement like bill of M.S.S.I.D.C. certification of the Divisional Manager M.S.S.I.D.C. to that effect will have to be enclosed alongwith the bill pertaining to the work concerned. The payment towards the procurement of R.C.C. pipes and also items, in which the use of R.C.C. pipes is contemplated would be released only after fulfillment of the conditions, laid down as above.</p> <p><i>Note : In case, provision of this form B-1 conflicts with those in detailed cyclostyled provision and condition attached to this tender, the detailed cyclostyled provision and condition would prevail over those in this form.</i></p>

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GENERAL CONDITIONS OF CONTRACT

1) Authority of the Engineer-in-charge.

- 1.1) So far as it is legally or physically impossible, the contractor shall execute, complete and maintain the works in strict accordance with the contract under the directions and to the entire satisfaction of the Engineer-In-Charge and shall comply with and adhere strictly to the Engineer-In-Charge's instructions, and directions on any matter (whether mentioned in the contract or not pertaining to this works)
- 1.2) The Engineer-In-Charge shall decide all questions which may arise as to quality and acceptability of materials furnished and work executed, manner of execution, rate of progress of the works, interpretation of the plans and specifications and acceptability of fulfillment of the contract on the part of the contractor. He shall determine the amount and quality of the work performed and materials furnished and his decision and measurements shall be final. In all such matters and in any technical questions which may arise touching the contract, his decision shall be binding on the contractor.
- 1.3) The Engineer-in-charge shall have the power to enforce such decision and orders if the contractor fails to carry them out promptly. If the contractor fails to execute the work ordered by the Engineer-in-charge may give notice to the contractor specifying a reasonable period therein and on the expiry of the period proceed to execute such work as may be deemed necessary and recover the cost thereof from the contractor.
- 1.4) **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 the materials to be used for workmanship employed in connection with the works.

- 1.5) The Engineer-in-charge may from time to time, in writing, delegate to his representative any of the 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 the contractor and the department as through, it had been given by the Engineer-in-charge, provided always as follows :
- a) 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 to order to pulling down, removal or breaking up thereof.
- b) If the contractor is dissatisfied with any decision of the representative of the Engineer-in-charge, he shall be entitled to refer the matter to the Engineer-in-charge, who shall there upon confirm, reverse or vary such decision.

2) Other conditions for submission of Tender.

- 2.1) The Contractor shall be deemed to have carefully examined the work and site conditions including labour, the general and the special conditions, the specifications, schedules and drawings and shall be deemed to have visited the site of the work and to have fully informed himself regarding the lead conditions including tide and water level, wind and current velocity and sub-soil conditions and carried out his own investigation to arrive at the rates quoted in the tender. In this regard he will be given necessary information to the best of knowledge of department but without any guarantee about it.

- 2.2) It is presumed that the contractor has carefully gone through the works specifications, P.W.D. Handbook, M.O.R.T. & H specifications and the schedule of rates of the division and studied the site conditions before arriving at the rates quoted by him.

3) Treasure trove :

In the event of discovery by the contractor or his employees during the progress of the works of the any treasure, fossils, minerals or any other articles of value or interest, the contractor shall give immediate intimation there of to the Engineer-in-charge and alongwith make over to the Engineer-in-charge this representative such treasure or things which shall be the property of Government.

3.1) Layout of work :

Layout of the work will be done by the Contractor in consultation with the University Engineer, of the Department or his representative. The modern equipments like Theodolite / Total station shall be deployed by the contractor at his own cost as directed by the Engineer-in-charge. Some permanent marks should however be established to indicate the demarcation of the structure or any component there of made to this permanent marks in measurement books and drawing, signed by the contractor and the departmental officer. Responsibility regarding layout will be joint. All vegetation / bushes shall be cleared from site before start of work, so as to stack the material without hindrance to traffic.

4) Agent and work order book :

- 4.1) The contractor shall himself engage an authorised all time agent on the work capable of managing and guiding the work and understanding the specifications and contract condition. A qualified and experienced Engineer be provided by the contractor as his agent for technical matters in case the Engineer-in-charge consider this as essential for the work and so directs the contractor. Agent will take orders as will be given by the University Engineer or his representative and shall be responsible for carrying them out. The agent and/or site Engineer shall not be changed without prior intimation to the University Engineer and his representative on the work site. The Engineer-in-charge have the unquestionable right to ask for changes in the quality and strength of Contractors supervisory staff and to order removal from work of any of such staff. The contractor shall comply with such order and effect replacements of the satisfaction of the Engineer-in-charge.

- 4.2) A work order book shall be maintained on site and it shall be the property of Government and the contractor shall promptly acknowledge the order given therein by the Engineer or his authorized representative or his superior officer, and comply with them. The compliance shall be reported by contractor to the Engineer-in-charge in good time so that it can be checked. The blank work order book, with machine numbered pages in quadruplicate with perforated sheets for three copies to be detached, will be provided by the department for this purpose. Whenever any instructions are written in the work order book the contractor will be supplied with the first carbon copy.

5) Initial measurement for record :

Where for proper measurement of the work it is necessary to have an initial set of levels or other measurement taken the same as recorded in the authorized field book or M.B. 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 same made at his cost. Any failure on the part of the contractor to get such level etc. recorded before starting the work will tender him liable to accept the decision of the Engineer as to the basis of taking measurements. Likewise the contractor will not cover any work which will render its subsequent measurement difficult or impossible without first getting the same jointly measured by himself and the authorized representatives of the Engineer. The record of such measurements on the Government side will be signed by the University Engineer and he will be entitled to have a true copy of the same made at his cost.

6) Custody of work:

All work and materials before being finally taken over by Government will be the entire liability of the contractor for guarding, maintaining and making good any damages of any magnitude. It is however, to be understood that before taking over such work. Government will not put it to regular use as distinct from casual or incidental use, except as specially mentioned elsewhere in this contract or as mutually agreed to.

7) Co-ordinations :

When several agencies for different sub works of the project are to work simultaneously on the project site, the contractor shall render full co-ordination for achieving proper co-ordination 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 may make his independent arrangements for water, power, access, housing etc. but if they so desire he will be at liberty to come to mutual agreement with other contracting agencies in this behalf and make joint agreement with the approval of the Engineer-in-charge. The contractor shall not take or cause to be taken any steps or action that may cause disruption, discontent or disturbance to work, labour or other arrangements etc. of other contractors in the project localities. Any action by the Contractors which the Engineer-in-charge in his unquestioned discretion, may consider infringement of the above would be considered as a breach of the contract conditions and shall be dealt with as such.

In case of any dispute or disagreement between the various contractors, the Engineer-in-charge's decisions regarding the coordination, co-operation and facilities to be provided by any of the contractor shall be final and binding on the contractor concerned & such a decision or decisions shall not vitiate contract nor absolve the contractor of his obligations under the contract, nor form the grounds for any claim or compensation.

8) Patented Devices, Materials and Process :

Whenever the contractor desires to use any designed device, material or process covered by letter of patent copy right, the right for such use shall be secured by suitable legal arrangement and agreement with patent owners and the copy of their agreement shall be filed with Engineer-in-charge.

9) Relation with Public Authorities :-

The contractor shall comply with all rules, regulations, by law and directions, given from time-to-time by any local or public authority or body in connection with this work and shall himself pay fees or charges which are leviable on him with out any extra cost to Government.

10) Indemnity :

The contractor shall indemnify the Government against all action, suits, claims and demands brought or made against it 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 any against any loss or damage to the Government in consequences of anything done or committed to be done in the execution of the work of this contract. The Government may, at its discretion and entirely at the cost of contractor, defend such suit either jointly with the contractor or singly, in case the contractor chooses not to defend the case.

11) Stacking, Storage and guarding of materials:

- 11.1) The stacking and storage of materials at site shall be in such a manner as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the contractor to protect against atmospheric actions, fire and other hazard. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and

where there is likelihood of subsidence of soil, heavy materials shall be stored on paved platforms. Suitable separating barricades and enclosures as directed shall be provided to separate materials brought by contractor and obtained from different sources of supply.

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11.2) The contractor shall at his own expenses, engage watchmen for guarding the materials and plant and machinery and the work during day and night against any pilferage or damage and also for prohibiting trespassers.

11.3) No materials brought to the site shall be removed from the site without the prior approval of the Engineer-in-charge.

12) Inspection of work by Engineer-in-charge.

12.1) 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 affection the further progress of the work.

12.2) The contractor shall provide at his cost necessary ladders and such arrangements as are considered safe by the Engineer-in-charge for proper inspection of all parts of the work by the local representatives, M.L.A's and officers etc. No compensation shall be paid to the contractor on this account.

13) Precaution to be taken by contractor:

13.1) The work shall be carried out by the contractor without causing damage to the existing Government property and/or private property. If any such damage are caused, the contractor shall pay for restoration of the property to the original conditions, and any other consequent damages.

13.2) In the event of an occurrence of an accident, involving serious injury or death of any person, at site of work or quarry or at any place in connection with the work the same shall be reported in writing within twenty four hours of the occurrence to the Engineer-in-charge and the Commissioner of Workmen's compensation.

14) Clearance of site on completion of works:

The contractor after completion of work shall clean the site of all debris and remove all unused materials other than those supplied by the department and all plant and machinery, equipments, tools etc., belonging to him within one month from the date of completion of the work, or otherwise the same will be removed by the department at his cost or disposed off as per departmental procedure. Incase the material is disposed off by department, the sale proceeds will be credited to the `contractor's account after deducting the cost of sale incurred. However, no claim of contractor regarding the price of amount credited will be entertained afterwards. In case of road work the vegetation on road formation and slopes shall be cleared at the time of completion by contractor at his own cost.

15) Removal of Constructional plant with prior permission:

All constructional plant, provided by the contractor shall when brought on the site be deemed to be exclusively intended for the construction and the contractor shall not remove the same or any part thereof (Save of the purpose of moving it from one part of the site to another) without the consent in writing of the Engineer-in-charge who shall record the reasons for withholding the consent.

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16) Restrictions because of local traffic:

As there is Local traffic by the side of construction, the contractor will have to take proper precautions such as proper barricading, fencing, lighting, information and cautionary boards for safe and smooth flow of traffic, and keeping the concerned authorities informed about the work in progress.

17) Completion Certificate:

- 17.1) 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 that effect. No approval of material or workmanship or approval of part of work during the progress of execution shall bind the Engineer-in-charge or in any way prevent him from even rejecting the work which is claimed to be completed and to suspend the issue of his certificate of completion until such alteration and modification or reconstruction have been effected at the cost of the contractor as shall enable him to certify that the work has been completed to his satisfaction.
- 17.2) After the work is completed the contractor shall give notice of such completion to the Engineer-in-charge and within 30 days of receipt of such a notice the Engineer-in-charge shall inspect the work and if there is no defect in the work, shall furnish the contractor with a certificate indicating the date of completion. However, if there are any defects which in the opinion of the Engineer-in-charge are rectifiable he shall inform the contractor the defects noticed. The contractor after rectification of such defects shall then inform the Engineer-in-charge and Engineer-in charge on his part shall inspect the work and issue the necessary completion certificate within 30 days if the defects are rectified to his satisfaction, and if not, he shall inform the contractor indicating defects yet to be rectified. The time cycle as above, shall continue.
- 17.3) In case defects noticed by the Engineer-in-charge which in his opinion are not rectifiable but otherwise work is acceptable at reduced payment, work shall be treated as completed. In such cases completion certificate shall be issued by the Engineer-in-charge within 30 days indicating the un-rectifiable defects for which specified reduction in payment is being made by him.
- 17.4) The issue of completion certificate shall not be linked up with the site clearance after completion of work.
- 17.5) Should the part of construction is put to use at any stage prior to date of issue of completion certificate, the maintenance period of that part of the work shall be reckoned from the date of actual use of the facility.

18) Ancillary Works :

The contractor shall submit to Engineer-in-charge in writing the details of all ancillary works including layout and specifications to be followed for its construction. Ancillary work shall not be taken up in hand unless approved by Engineer-in-charge. The Engineer-in-charge reserves the right to suggest modifications or make complete changes in the layout and specifications proposed by the contractor at any stage to ensure the safety on the work site. The contractor shall carry out all such modification to the ancillary works at his own expenses as ordered by Engineer-in-charge.

19) Temporary Quarter :-

The contractor shall at his own expense make his own arrangement for housing his staff with all necessary amenities. General layout plan for such structures shall be got approved from the Engineer-in-charge. It will be the responsibility of the contractor to get his layout plan of temporary structure approved from the local competent authorities.

20) Safety measures and Amenities :

Safety Measures

The contractor shall take all necessary precautions for the safety of the workers and preserving their health while working on such jobs as required special protection and precaution where ever required. The contractor shall also comply with the directions issued by the Engineer-in-charge in this behalf from time to time at all times.

The following are some of the requirement

- i) Providing protective footwear to workers in situations like mixing and placing of mortar or concrete, in quarries and place where the work is to be done under too much wet conditions as also for, movements over surfaces infested with oyster growth.
- ii) Providing protective hardware to working in quarries etc. to protect them against accidental fall of materials from above.
- iii) Providing handrails at the edge of the floating platforms, barges walkways, ladder etc.
- iv) Providing workmen with safety belts, ropes etc. when working on any masts cranes, cribs, hoists, dredgers etc.
- v) Taking necessary steps towards training the workers concerned on the use of machinery before they are allowed to handle it independently and taking all necessary precautions in and around the areas where machines, hoists and similar units are working. Wherever required, the persons handling the machinery shall have requisite licenses, certificate etc.
- vi) Preventing over loading and over crowding of floating and land based machinery and equipment.
- vii) Providing life belts to all men working at such situations from where they may accidentally fall into water or on the ground, . Equipping the boats with adequate numbers of life buoys etc.
- viii) Avoiding bare live wires etc. as would cause electrocutions.
- ix) Making platforms, stagings and temporary structures sufficiently strong and not causing the workmen and supervisory staff to work under risks.
- x) Providing sufficient first-aid trained staff and equipment to be available quickly at the worksite to render immediate first-aid treatment in case of accident due to suffocation, drowning and other injuries.
- xi) Taking the all necessary precautions wherever drivers are engaged on work.
- xii) Providing full length gum boots, leather hand gloves, leather jackets with fireproof aprons to cover the chest and back reaching upto knees plain goggles for the eyes to the labour working with hot asphalt handling, vibrators in cement concrete and also where use of any or all these items is, essential in the interest of health and well-being of the labourers in the opinion of the Engineer-in-charge.

21) **Medical and Sanitary Arrangements to be provided for labour employed in the construction by the Contractor :**

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- a) The Contractor shall provide an adequate supply of potable water for the use of labourers on works and in camps.
- b) The Contractor shall construct trenches or semi permanent latrines for the use of labourers. Separate latrine shall be provided for men and women.
- c) The Contractor shall build sufficient number of huts on suitable plot of land for use of the labourers according to the following specifications.
 - (1) Huts of Bamboos and Grass may be constructed.
 - (2) There should be no over crowding. The floor space at the rate of 3 sqm. (30 Sq.ft.) per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.
 - (3) The contractor must find his own land. If he wants Government land he should apply for it. Assessment for it, if demanded will be payable by contractor. However the department does not bind itself for making available the required land.
 - (4) A good site not liable to submergence shall be selected. High ground remote from jungle but well provided with trees, shall be chosen wherever it is available. The neighborhood of tank, jungles, grass or weeds should be particularly avoided. Camps should not be established close to large cutting of earth work.
 - (5) The lines of huts shall have open space of at least 10 meters between rows. When a good natural site can not be procured particular attention should be given to the drainage.
- d) The contractor shall construct sufficient number of bathing places. Sufficient number of washing places should also be provided for the purpose of washing cloths.
- e) The contractor shall make sufficient arrangements for draining away the surface and sullage water as well as water from the bathing and washing places and shall dispose off this waste water in such a way as not to cause any nuisance.
- f) The contractor shall engage a medical officer with a traveling dispensary for a camp containing 3000 or more persons if there is no Govt. or other private dispensary situated within 8 kilometers from the camp. In case of an emergency, the contractor shall arrange at his cost free transport for quick medical help to his sick workers.
- g) The contractor shall provide the necessary staff for affecting the satisfactory conservancy and cleanliness of the camp to the satisfaction of the Engineer-in-charge. At least one sweeper per 200 persons should be engaged.
- h) The Assistant Director of Public Health shall be consulted before opening a labour camp and his instructions on matters such as water supply. Sanitary convenience, the camp site, accommodation and food supply shall be followed by the contractor.
- i) In addition to above all provisions of the relevant labour act pertaining to basic amenities to be provided to the labourer shall be applicable which will be arranged by the contractor.
- j) The contractor shall make arrangement for anti-malaria measure to be provided for labour employed on the work. The anti-malaria measures shall be as directed by Assistant Director of Public Health Officer.

Contractor	No of correction	University Engineer
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- 22) The contractor except as provided in special conditions which follow, shall, if necessary construct at his cost, temporary roads and maintain these in proper conditions till completion of the work, at his own cost.

23) The contractor except as provided in special conditions which follow shall have to at his own expenses make all preliminary arrangements for labour, water, electricity, and materials etc., immediately after getting the work order. The Government may render necessary assistance in this regard by way of letters of recommendation, if so requested by the contractor. No claim for any extra payment or application for extension of time on the grounds of any difficulty in connection with the above matters will be entertained.

24) **Working methods and progress schedules :**

24.1) The Contractor shall submit within the time stipulated by the Engineer in writing the details of actual methods that would be adopted by the contractor for the execution, of any items as required by Engineer at each of the location, supported by necessary detailed drawing and sketches including those of the plant and machinery that would be used their locations arrangement for conveying and handling materials etc. and obtain prior approval of the Engineer-in-charge who reserves the right to suggest modifications or make corrections in the method proposed by the contractor whether accepted previously or not at any stage of the work, to obtain the desired accuracy, quality, safety and progress of work which shall be binding on the contractor. No claim on account of such change in method of execution will be entertained by Government so long as specification of the item remains unaltered.

24.2) The Contractor shall furnish within one month of the order to start the work programme of work in quadruplicate indicating the date of actual start, the monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him, also indicating date of procurement of materials and setting up of plants and machinery. The programme is to be such as to be practicable of achievement towards the completion of the whole work in the time limit and of the particular items, if any on the due dates specified in the contract. Planning and programme of works shall be done by the mutual discussion between the **Engineer –in-charge** and contractor's representative in charge of work. The progress of work shall be reviewed every six months and revised programme shall be drawn up, if necessary, No revised programme shall be operative without the approval of Engineer-in-charge in writing. The Engineer is further empowered to ask for more detailed schedule or schedules say weekly, for any item or items in case of urgency of work as will be directed by him and the contractor shall supply the same and when asked for. Acceptance of the programme or the revised programme, by the Engineer-in-charge shall not relieve the contractor of his responsibility to complete the whole of the work by the prescribed time or the extended time if any.

24.3) The Contractor shall furnish sufficient plant, equipment and labour as may be necessary to maintain the progress schedule. The working and shift hours restricted to one shift a day for operations to be done under the Government supervision shall be such as may be approved by the Engineer-in-charge. They shall not be varied without prior approval of the Engineer. Night work which requiring supervision shall not be permitted except when specifically allowed by Engineer-in-charge if requested by contractor. The contractor shall provide necessary lighting arrangement etc. for night work as directed by Engineer without extra cost of Government.

24.4) The contractor shall submit report on progress of work in forms and statement etc. as periodical intervals in the form of progress charts, forms, statements and/or reports as may be approved by the Engineer. Forms for sending reports about progress will be supplied by the University Engineer.

24.5) The contractor shall maintain proforma, chart, details regarding machinery equipment, labour, material, periodical returns thereof in proforma to be approved from the Engineer-in-charge.

25) **Payment :**

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The Tenderer must understand clearly that the rates quoted are for completed work and include all cost due to labour, all leads and lifts involved and if further necessitated scaffolding plants, supervision, service works, power etc. and to include all to cover the cost of night and round the clock work as and when required and no

claim for additional payment beyond the prices or rates quoted will be entertained and the tenderers will not be entitled subsequently to make any claim on the ground of any representation or on any promise by and person (whether tender in the employment of any Public Works Deptt. or not) or on the ground of any failure on his part to obtain all necessary information for the purpose of making his tender and fixing the several prices and rates therein relieve him from any risks or liabilities arising out of or consequence upon the submission of the tender.

Payment to the contractors will be made by cheque drawn on any treasury within the Division, provided the amount to be paid exceeds Rs. 100/- smaller amount will be paid in cash.

26) Claims of extra work

26.1) Claims for extra work shall be registered within 30 days of occurrence of the event. However, bills for these claims alongwith supporting data details may be submitted subsequently.

26.2) Bills for extra work or for any claim shall be paid separately apart from the interim bills for the main work. The payment of bills for the main work shall not be withheld for want of decision on the extra/claims not covered in the schedule of items for extra work.

27) Bill and Payments:

27.1) Two running payments in a month are permitted. First of the bill shall be submitted by the contractor by the 10th day of the month and Second bill, if necessary, shall be submitted by the contractor by the 25th day of the month.

27.2) The format of running bill on which the bills are to be submitted by the contractor shall be supplied to the contractor by the Department Printed copies of the bills forms as per this format shall be arranged by the contractor at his cost. The bills in five copies shall be submitted to the concerned Engineer's representative in the standard proforma only.

27.3) The final bill shall be submitted by the contractor within one month of the date of issue of completion certificate. The final bill shall be paid within six months of initial submission.

27.4) Recovery of secured advances shall be effected through bills proportionately as per consumption of materials in the work billed for.

27.5) The contractor can have true copy of the bills paid to him after paying charges for photo copying the same.

27.6) Controlled concrete :

Acceptance criteria shall be as per IS: 456 -----0

27.7) Ordinary concrete :

Acceptance criteria shall be as per IS: 456 -----0

28) Assistance in procuring priorities, permits etc. :

28.1) The Engineer-in-charge on written request by the contractor, will if in his opinion the request is reasonable and in the interest of work and its progress, assist the contractor in securing the police protection and the priorities for deliveries, transport, permits, for controlled materials permits for quarries and other similar permits including labour licence etc. where such are needed. All cost in this behalf shall be borne by the contractor. The department will not, however, be responsible for the non-availability of such facilities or delays in the behalf and no claims on account of such failure or delays shall be allowed by the department.

28.2) The contractor will have to make his own arrangement for machinery required for the work. However, if such machinery is conveniently available with the department it may be spared on hire as per department's rules in force if requested by the contractor in writing. For such arrangement a separate agreement in the prescribed form will have to be signed by the contractor. Such an agreement shall be independent of this contract and the supply or non-supply of machinery shall not form a ground for any claim or extension of time limit for this work.

29) Water supply :

29.1) Availability of adequate water for work and sources thereof shall be confirmed by the contractor before submitting the tender.

29.2) The Contractor shall make his own arrangements at his own cost for entering into contract with concerned authorities for obtaining the connection and carry the water upto the work site as required by him. The location of the pipe line with respect to the road shall be decided by Engineer-in-charge and shall be binding on the contractor. The department shall not bear any responsibility in respect of any problem and contractor shall not be liable for getting any compensation on any ground. The progress of work shall not hamper for the above reasons.

29.3) The contractor is advised to provide water storage tanks of adequate capacity to take care of possible shut down of water supply system.

29.4) The contractor shall have to supply water required by the department for its establishment at work site free of cost.

30) Electricity :

30.1) The contractor will have to make his own arrangement at his own cost for obtaining or providing electric supply at work site. The Department shall not bear any responsibility in respect of any problem and contractor shall not be liable for getting any compensation on any ground. The progress of work shall not hamper for the above reasons.

30.2) Electrical supply for the Departments use at work site shall be provided by the contractor at mutually agreed terms. The contractor may not abide by these conditions when power supply at the site fails.

31) Telephone facilities :

Contractor will have to make his own arrangement at his own cost for telephone connection at work site, if required.

32) Material Sources:

32.1) The tenderers shall make their own independent investigations into the availability as well as suitability of the various materials required for construction as referred to in this para.

32.2) If any quarry is in the possession of the department the contractor will be allowed to use the same on usual conditions. In other cases, the contractor will have to make his own arrangement for procuring quarries or the quarry permits, necessary assistance of which will be given by the department.

Contractor

No of correction

University Engineer

32.3) Lime stone shall not be permitted for any concrete work.

33) Land:

- 33.1) The contractor shall make all efforts to obtain land required for the ancillary works. In case the contractor is unable to obtain land and if requested then the department may requisit land at his cost.
- 33.2) Land as available with the department or requisitioned by the department at the request of the contractor will be handed over to the contractor for such use as will be necessary for ancillary work required on payment of rent to the department. Plot development, if any, will have to be done by the contractor at his own cost. The development shall be in conformity with the regulations of the local authority.
- 33.3) If for the purpose of construction it becomes necessary of the contractor to occupy land not in possession of the department the contractor will have to make his won arrangement with the land owners and pay such compensations as mutually agreed between them.
- 33.4) On completion of work, all land mentioned in para 34.1., 34.2, 34.3 shall be handed over back to the owners, or the department, as the case may be, after clearing the land as directed by the Engineer-in-charge. Dismantling of building on Government or department land shall be done only after the approval of the Engineer-in-charge.

34) Floods or Accidents :

The contractor shall take all precautions against damages by floods or from accidents etc. No compensation will be allowed to the contractor on this account or for correction and repairing any such damages to the work during construction.

The contractor shall be liable to make good at his cost any plant or materials belonging to the Government lost or damaged by floods or from any other causes while in his charge.

- 35) Urgent Works:** If any "Urgent Works" become necessary and contractor is unable or unwilling to carry it out at once, the Engineer-in-charge may by his own or through other people have it carried out as he may consider necessary. If the "Urgent Work" shall be such as in the opinion of the Engineer-in-charge the contractor is liable under the contract to carry out at his expenses, all expenses incurred on it by the department shall be recoverable from the contractor, and be adjusted or set off against any sum payable to him.

36) Change of Cement Concrete etc.:

Theoretical consumption of Cement for the Concrete work

Sr.No.	Volumetric mix of concrete	Consumption of cement in bags/Cum
1	C.C.M-10	4.40 bags/Cum
2	C.C.M-15	6.27 bags/Cum
3	C.C.M-20	7.10 bags/Cum
4	C.C.M-25	7.50 bags/Cum
5	C.C.M-30	8.00 bags/Cum
6	C.C.M-35	8.30 bags/Cum
7	C.C. M-40	8.50 bags/Cum
8	C.C. 1:4:8	3.40 bags/Cum

Note : The weight per bag of cement is considered as 50 Kg.
The rate of consumption of cement for various grades of concrete referred above is a theoretical rate of consumption assumed for the estimate purpose. The contractor will have to obtain an economic mix design for

various grades of concrete and get it approved from the Engineer-in-charge. The specification for controlled cement concrete shall be as per standard specification No. B-7 Page 38, and IS 456-3600

Immediately upon the receipt of the award of the contract, the contractor shall inform the Engineer the exact location of the sources of the acceptable material. The concrete mix to be used shall be got designed in all approved laboratory, by the contractor with a optimum quantity of cement to give the specified strength in the preliminary tests and the proportion got approved by the engineer in writing. These proportions shall be used so long as the materials continue to be of the same quality and from the same sources subject only to slight changes in the relative quantities of fine and course aggregate for the purpose of promoting workability provided the work tests and shows the required strength.

If such preliminary tests involve change in cement consumption upto 2% on the higher or lower side, no adjustment in the cost of the item to be paid to the contractor shall be made. If such alterations, changes, theoretical consumption of cement by more than 2% on the higher or lower side, the sources and quality of aggregate remaining the same, payment will be adjusted for or against the contractor in whatever amount the total cost of cement to the contractor has been increased or decreased by more than 2%. The amount of such increase or decrease shall be calculated on the basis of quantity of cement determined and prescribed in the special provisions. In adjusting the cost only the cost of cement shall be considered and not handling or other charges, which shall be treated as incidental to the terms. If during the progress of work the contractor wishes to change the material, the proportions shall be fixed on the basis of fresh preliminary tests to give the required strength after the Engineer is satisfied that the material satisfy the specifications. No adjustment of the cost shall be made for a change of proportions of cement fixed in the original preliminary tests.

37) Contractor to inform himself fully :

The Contractor shall be deemed to have carefully examined the work and site conditions including labour, the general and the special conditions, the specifications, schedules and drawings and shall be deemed to have visited the site of the work and to have fully informed himself regarding the local conditions including water levels, winds, current velocities and sub-soil condition and carried out his own investigation to arrive at the rates quoted in the tender. In this regard he will be given necessary information to the best of knowledge of department but without any guarantee about it.

If he shall have any doubts as to the meaning of any portion of these general conditions, or the special conditions to the scope of working of the specifications and drawing, or any other matter concerning the contract, he shall in good time before submitting his tender set forth the particulars there of and submit them to the Engineer in writing in order that such doubt may be clarified authoritatively before tendering. Once a tender is submitted the matter will be decided in accordance to the tender conditions in absence of such authentic clarification.

38) Errors, Omissions And Discrepancies :

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

b) In all cases of omissions and/or doubts or discrepancies in the dimension or description of any item or specifications a reference shall be made to the Engineer, whose elucidation, elaboration or decision shall be considered as authentic. The contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precautions.

c) The contractor should not sublet any part of work without written permission of the Engineer-in-charge.

39) Samples and Testing of Materials :

i) All materials to be used on work such as cement, lime, brick, aggregates, steel, stone, asphalt, wood, tiles etc. shall be got approved in advance from the Engineer-in-charge and shall pass the tests and analysis required by him which will be (a) as per specifications of the items concerned and or (b) as specified by the Indian Road Congress standard specification and code of practice for road and bridges or (c) I.S.I. specification whichever and wherever applicable (d) as per specification Ministry of Surface Transport for Roads and bridges section 900 quality control for road work or (e) such recognised specification acceptable to the Engineer-in-charge as equivalent there to or in the absence of such authorised specification (f) such representative in the order of precedence given above.

ii) The contractor shall at his risk and cost make all arrangements and/or shall provide for all such facilities as the Engineer-in-charge may require for collecting, preparing and forward required number of samples for tests or for analysis to the nearest approved laboratory and bear all charges and cost of testing. Such samples shall also be deposited with the Engineer-in-charge till sent for testing.

iii) The contractor shall, if and when required, submits at his cost the samples of materials to be tested or analyzed and if so directed, shall not make use or incorporate in the works any materials to be represented by the sample until the required test or analysis have been made and after this test results of the materials finally accepted by the Engineer-in-charge.

iv) Frequency of testing of the construction material and the percentage of testing from the Government laboratory shall be as under.

a) Where the field laboratory certified by the concerned University Engineer is established for the work at work site 70% tests as per total frequency required shall be carried out in the said field laboratory & 30% tests shall be carried out at the Vigilance & Quality Control Laboratory for the materials mentioned in **Annexure-I** on page ___ to ___ here under for the material not covered in Annexure- I, 50% tests shall be carried out in the field laboratory and remaining 50% tests need to be carried out in the Vigilance & Quality Control Laboratory of P.W.D. Govt. of Maharashtra. The entire responsibility of the sample testing as per required frequency including testing charges will be borne by the Contractor.

b) Where field laboratory is not established at works site 100% tests as per frequency shall be carried out in the Vigilance & Quality Control Laboratory.

c) Testing of cement and steel 100% in V.Q.C.C.Laboratory at Amravati/Akola is compulsory.

v) For providing Electric wiring duct tubes of the required diameters and length shall be provided through walls, beams and floors, slab as when diverted without any extra cost.

vi) a) The contractor will make his own arrangement for receiving all materials, tools, etc. required for the work.

b) No extra charge for the carriages of work be allowed.

c) ~~The rates for all items are inclusive of all charges such as carting, lifting etc. No extra payment for any lead and lift will be paid for any item.~~ ^{No of correction} ^{University Engineer}

d) The contractor should not be sublet any part of work without written permission of the Engineer-in-charge.

- e) The condition in the tender notice will be binding on the contractor and tender notice will form a part of agreement.
- f) Frequency of testing shall be as per relevant specifications. In case such frequency is not specified in work specifications then the I.S. Code will be referred and for other cases where I.S. Code do not stipulate the frequency of testing it will as directed by Engineer-in-charge.

40) Weigh Batching: The following instructions shall be followed as regards to preliminary designs of mix and methods of batching of plain cement concrete and reinforced cement concrete. The preliminary mix design and batching for various grades of concrete shall be governed by the following guidelines as per IS 456-3600/ Mix Design- It will be the responsibility of the contractor to obtain the mix design for various cement concrete grades at his cost from the recognised institution.

41) Miscellaneous:

41.1) Competency of Tender:- The work will be awarded only to those contractors who are considered to be responsible bidders, capable of performing the class of work to be completed. Before passing the final award any or all bidders may have to show that he has the necessary experience, facilities, ability, and financial resources to execute the work in satisfactory manner and also within the stipulated time. The bidders may also be required to furnish to the Department a statement in respect of their experience and final resources.

41.2) Eraser : Person tendering are informed that no erasers or any alterations by them in the text of the documents set herewith will be allowed and any such eraser on an alteration will be disregarded, if there is any error in writing no overwriting should be done but the wrong words or figures should be struck out and the correct one written above or near it in an unambiguous way. Such corrections should be initiated and dated.

41.3) Acceptance : Intimation of acceptance of tender will be given by a telegram or a letter sent by registered post to the address given below the signature of the tenderer in the tenders. The tenders which do not fulfill any of the conditions for those in the form and which are incomplete in any respect shall be liable for rejection.

41.4) Precautions to be taken by the contractor to prevent accident.

- i) No live electric lines should be allowed to run along the ground in the blasting zone and they should be at least 3 meter above ground if not more.
- ii) The wiring cable should be taken near the live electric line and it should be preferably short firing cable as supplied by the supplier of explosives. If such cable is not available a substitute cable made up of several pieces properly jointed and tapped be used.
- iii) The blasting shed from where the exploder is to finally operated should be at least 3000 Ft. away from the area to be blasted. It should have a strong roof which can withstand the impact of flying stones at his range.
- iv) Only trained hands should be allowed to handle explosives, cable detonators etc.

41.5) Police Protection:- For the special protection of the camp of the contractors work, the Deptt. will help the contractors as far as possible to arrange for such protection with the concerned authorities. The cost shall be borne by the contractor.

41.6) For providing electric wiring or water line etc. recesses shall be provided if necessary through walls, slabs beams etc. and later on refilled it with bricks or stones, chippings cement mortar without any extra cost.

- 41.7) In case it becomes necessary for the due fulfillment of contract for the contractor to occupy land outside the Department limits the contractor will have to make his own arrangements with the landowners and pay such rents, if any, which are payable as mutually as agreed between them.
- 41.8) The contractor shall duly comply with the provisions of the Apprentices Act.1961 (iii) of 1960 and the rules and orders made there under from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all the liabilities and penalties provided by the said Act and said Rules.
- 41.9 It is presumed that the contractor has gone carefully through the standard specification (vol. I & II 1981 edition) of Govt. of Maharashtra P.W.D condition/MORT & H specifications of latest edition and the schedule of rate of the Division, and studied of site conditions before arriving at rates quoted by him. The special provisions and detailed specification of wording of any item shall gain precedence over the corresponding contract. Decision of Engineer-in-charge shall be final in case of interpretation of specification.
- 41.10 If the standard specifications fall short for the items quoted in the schedule of this contract reference shall be made to the latest Indian Standard specifications, I.R.C. codes, and MORT & H specification if any of items of this contract do not fall in reference quoted above, the decision and specifications as directed shall be final.

42) Load Testing :

The Engineer-in-charge is empowered to order load testing of the building, bridges or their component whenever there is a doubt about the workmanship or the safety of the building component or whenever there is a need to confirm the workmanship and the safety of the structure by carrying out load test. The load testing shall be carried out as per the specifications B.R. 58 of the book of standard specifications published by Govt. of Maharashtra P.W.D. with such specifications as ordered by Engineer-in-charge.

- i) The load for such test shall be full dead load (excluding self load of the member under test) plus 125% maximum design live load (including impact) in cases of R.C.C. Bridges.
- ii) The load testing will be carried out by the Department through a suitable Competent Agency. Test result from such agency as will be fixed by Department will be binding on the contractor.
- iii) If the result of the load test are not found to be satisfactory, the contractor shall strengthen the already cast member or reconstruct the members at his cost and also bear the cost of load test. The decision of the Engineer-in-charge will be final in this case.

43) Special Conditions:

- 43.1) The contractor should ensure that all safety precautions are observed by their labours, working closed to the State Highway and while closing the State Highway precautions are taken including insurance etc. for their labours at the cost of the contractor etc.If any accident occurs to the labour etc, no claim in this regard on whatsoever account shall be entertained and this decision of the department will be final and conclusive.

- 43.2) During the execution if there is any change in:

- (i) Span Arrangement.
- (ii) Height of substructure and superstructure above ground level.
- (iii) Change in the depth of foundation, tendered rate for respective items will hold good and no extra claims shall be entertained on this account.

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No of correction

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- 43.3) Contractor shall observe the rules and regulations imposed by traffic police for smooth flow of traffic on the diversion road and shall not be entitled for claim any compensation arising thereof.

44) **Mix Design**

- 44.1) The following instructions shall be followed as regards preliminary design of mix methods of batching of plain cement concrete and reinforced cement concrete. These instructions should be treated as supplementary to the relevant provision in the specifications for the respective items contained in the book of standard specifications and will override the provisions contained therein wherever they are contrary to the following instructions. The preliminary mix design and batching for various grades of concrete shall be governed by the following guidelines.

	Concrete Grade	Guidelines
1	Up to M-15	This should only by ordinary concrete. No change may be prescribed for the present practice as regards preliminary design of mix permitting volume batching.
2	M-20	Preliminary mix design must be carried out for these mixes. However, weight batching shall be insisted for cement only.

- 44.2) For the grades of concrete M-20 and above the preliminary mix design shall be carried in P.W.D. Govt. laboratory.

- (i) The charges for preliminary design of concrete mix shall be entirely borne by the contractor.
- (ii) For grades of concrete M-20 and above where cement is to be used by weight, the cost of extra cement required to make up the under weight bags shall be borne by the contractor.
- (iii) For the items of concrete of grades lower than M-20 other items in the agreement where cement is not to be used by weightment. The cement bags shall contain cement of 50 Kg. net weight.

- 44.3) The admixtures such as plasticizers/super plasticizers for concrete grade M-20 and above shall be used as directed by Engineer-in-charge depending upon specific requirements. No extra payments on this account will be admissible.

45) Definitions :- Unless excluded by or repugnant to the contents-

- (a) The expression **“Government”** as used in the tender documents shall mean the WORKS DIVISION of the Government of Maharashtra.
- b) The expression **‘The Chief Engineer’** as used in the tender papers shall mean Chief Engineer, P.W.Region, Amravati .
- c) The expression **‘Superintending Engineer’** as used in the tender papers shall mean the officer of Superintending Engineers ranks (by whatever designation he may be known) under whose control the work lies for the time being.

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- d) The expression "**Engineer**" or "**Engineer-in-charge**" as used in the tender paper shall mean the University Engineer-in-charge of the work. The Engineer-in-charge for this work is University Engineer,_____.
- e) The expression '**Contractor**' as used in the tender paper shall mean the successful tenderer that is the tenderer whose tender has been accepted and who has been authorised to proceed with the work.
- f) The expression '**contract**' as used in the tender papers shall mean the deed of contract together with all its original accompaniments and those later incorporated in it by mutual consent.
- g) The expression '**plant**' as used in the tender papers shall mean every temporary accessory necessary or considered necessary by the Engineer to execute, construct, complete and maintain the work and all altered, modified, substituted and additional works ordered in the time and the manner herein provided and all temporary materials and special and other articles and appliance of every sort kind and description whatsoever intended or used therefore.

Contractor

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ADDITIONAL TENDER CONDITIONS

1) Construction Machinery/Equipment.:

- 1.1) The methodology and equipment to be used on the project shall be furnished by the contractor to the Engineer well in advance of commencement of work and approval of the Engineer obtained prior to its adoption and use.
- 1.2) The contractor shall give a trial run of the equipment for establishing its capability to achieve the laid down specifications and tolerance to the satisfaction of the Engineer before commencement of work, if so desired by the Engineer-in-charge.
- 1.3) All equipment provided shall be proven efficiency and shall be operated and maintained at all times in manner acceptable to the Engineer-in-charge.
- 1.4) No equipment or personnel will be removed from site without permission of Engineer-in-charge.

2) Work Programme and Methodology of Construction:

The Contractor shall furnish his programme of construction for execution of the work within the stipulated time schedule together with methodology of construction of each type of work and obtain the approval of the Engineer-in-charge.

3) Revised Programme of work in case of slippage :

In case of slippage from the approved work programme at any stage, the contractor shall furnish revised programme to make upto slippage within the stipulated time schedule and obtain the approval of the Engineer-in-charge.

4) Action in Case of disproportionate progress :

In case of extremely poor progress of the work or any item at any stage of work which in the opinion of the Engineer can not be made good by the contractor considering his available resources, the Engineer will get it accelerated to make up the lost time through any other agency and recover the additional cost incurred, if any, in getting the work done from the contractor after informing him in writing about the action envisaged by him.

5) Setting Out :

Setting out the work as spelt out in clause 109 of Ministry's Specification for Road and Bridge Works (2nd Revision) will be carried out by the Contractor.

6) Public Utilities:

Action in respect of public utilities will be taken by the contractor as envisaged in clause 110 of MORT&H Specification of Road and Bridge work (2001).

7) Arrangement for traffic during construction:

Action for arrangement for traffic during construction will be taken by the contractor as envisaged in the contract documents and spelt out in clause 112 of M.O.R.T.&H. Specification of Road and Bridge work (2001)

8) Quality Control :

The responsibility of achieving quality of work will be on the contractor who will take actions as stipulated in section 900 of M.O.R.T.&H. Specification of Road and Bridge work (2001).

9) MORT&H specification for Road and Bridge work (2001) Fourth Revision:

MORT&H Specification of road and Bridge work (2001) will form part of the contract documents and the contractors will be legally bound to the various stipulation made therein unless and other wise specifically relaxed or waived wholly or partly through a special clause in the correct documents.

10) Applicable in case of Road Work only:

The details of the paver, specified in the M.O.R.T.&H. clause 504.3.5 third revision be relaxed in the case of bituminous macadam MORT&H-IVth Revision (Clause 504) where it is going to be covered by any wearing course other than semidense Bituminous macadam (Clause 507)/ Bituminous concrete (Clause 509) with the provision that it can be laid by means of self propelled mechanical paver with suitable screeds capable of spreading, temping and finishing the mixture to the specified lines grades and cross section.

11) Special Condition for B.T.work:

In respect of Black Top Work, 15% (Fifteen P.C.) payment of black Top item in a particular Km. will be retained till completion of side berms/C.D. Works etc. in that Km. After completion of other items satisfactorily, the withheld payment will be released finally..

12) Insurance of Contract work.

Contractor shall take out necessary Insurance Policy/Policies (Viz contractors all risk Insurance policy, Erection all risk, Insurance policy etc. as decided by the Directorate of Insurance) so as to provide adequate insurance cover for execution of the awarded work for total contract value and complete contract period compulsorily from the, "Directorate of Insurance, Maharashtra State, Mumbai" only. Its postal address for correspondence is "264, MHADA, First Floor, Opp. Kalanagar, Bandra (East) Mumbai-----051". (Telephone Nos. 26590403/26590690 and Fax Nos. 26592461/26590403. Similarly all workmen appointed to complete the contract work are required to insure under workmen's compensation insurance Policy. Insurance Policy/Policies taken out

from any other company will not be accepted. If any Contractor has effected Insurance with any Insurance Company, the same will not be accepted and the amount of premium calculated by the Government Insurance Fund will be recovered directly from the amount payable to the Contractor for the executed contract work and paid to the Directorate of Insurance Fund Maharashtra State, Mumbai. The Director of Insurance reserves the right to distribute the risk of insurance among the other resources.

Contractor

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University Engineer

12(A) INSURANCE

The contractor shall provide in the joint names of the Employer and the contractor insurance through Director of insurance Govt. of Maharashtra from the start date to the end of the Defects Liability Period for the following events which are due to the Contractor's risks. The Contractor's all risk policy and the workmen's insurance policy shall be within the Maharashtra insurance Fund only as stated above.

- A) Loss of or damage to the work, plant and materials
- B) Loss of or damage to Equipment
- C) Loss of or damage of property (except the work, plant, materials and Equipment) in connection with the contractor and
- D) Personal injury or death

Policies and certificates for insurance shall be delivered by the contractor to the Engineer for the Engineer's approval before the start date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

If the contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the contractor or, if no payment is due, the payment of the premiums shall be a debt due.

Alteration to the terms of an insurance shall not be made without the approval of the Engineer.

Both parties shall comply with any conditions of the insurance policies.

- 13) The responsibility of achieving quality of work will be on the contractor who will take action as stipulated in standard specification as per Schedule "C".
- 14) The contractor shall provide, furnish, maintain and remove on completion of the work a suitable site **office-cum-laboratory** on the work site for use of Executive Engineer's representative. The site office cum laboratory shall be separate rooms of sufficient area. It shall preferably be 68 sqm as per drawing attached with Tender Document. It may have brick wall & asbestos or corrugated sheet roof with false ceiling, paved floor should be 0.45 mtr. above ground level, laboratory shall have working platform, necessary electrical provision and water supply arrangement. Arrangement of display of drawing should also be made. He should provide suitable latrines, urinals and keep them clean daily. This will be included in his offer. Necessary laboratory equipment, office furniture shall be provided by the contractor at his own cost. After completion of work it will be property of contractor. It should be removed from site of work at his own cost.

- 15) The contractor should produce the no objection certificate obtained from the Maharashtra Pollution Control Board before starting Crusher/Drum Mix Plant on the work site.

16) **Supply of Colour Record Photographs and Album :**

The contractor shall arrange to take colour photograph at various stages/Facts of the work including interesting and novel features of the work as desired by the Engineer-in-charge. Photographs shall be of acceptable quality. Each photograph taken shall be standard post card size, marked in albums of acceptable quality. Also the C.D. or the same shall be supplied for each photograph in the Album shall be suitably captioned.

The contractor shall arrange for taking video films of important activities of the work as directed by the Engineer-in-charge during the currency of the project and editing them to a video film of playing time not less than 60 minutes and up to 180 minutes as directed by the Engineer-in-charge. It shall contain narration of the acceptable quality and the film shall be capable of producing colour pictures.

It shall be considered as incidental to the work and no additional payment, whatsoever will be made for the same.

- 17) Notwithstanding whether it as per the rules of the traffic authorities or otherwise the agency should ensure that their vehicles, the term includes all construction machinery towards or self driven are equipped with the following to emphasize / traffic safety.

- i) Reflector 4 Nos.
- ii) Tail lamp 2 Nos.
- iii) One of the following slogan:
 - a) “ जल्दी रती ाम ाराब, होश मे आया लाट सहाब ”
 - b) “ दारुचा ए च प्याला ार ा तुमच्या नाशाला ”
 - c) “ Drink and drive, you won't survive ”
 - d) “ वाहन व्यवस्थीत, जीवन सुरी ात ”
 - e) “ ए ं झप ि ए ं अपघात ”
 - f) “ जेथे ल ा विचलित तेथे अपघात निश्चित ”
 - g) “ आप ि भुल दुसरो ि परेशानी ”
 - h) “ आवरा वे ाला सावरा जिवाला ”
 - i) “ मनाचा ब्रे उत्तम ब्रे ”
 - j) “ न ि मर ा, न ि अपं ाता, वे ावर ताबा बाळ ा द ाता ”
 - k) “ समय मुल्यवान है ले िन जिवन अमुल्य है ”
 - l) “ धुम्रपान मद्यपान आयुष्याची धुळधा ा ”
 - m) “ Live & let Live ”
 - n) “ A cat has 10 lives you have only 1 ”
 - o) “ If married divorce speed ”

In absence of the above requirements and failure of the agency to fulfill them in a reasonable time the University Engineer in charge of the work will get it done from the Mechanical wing of the P.W.Department and would recover the cost from the amount due to the agency at the following rates.

- i) Reflector Rs.25/- Per Nos.
- ii) Tail Lamp Rs.175/- Per Nos.
- iii) Slogan Rs.75/- Per Nos.

18) The decision of the **Engineer –in-charge** will be binding and conclusive in this matter.

19) After award of contract, contractor will have to provide and fix the information boards showing name, tender cost, period of completion, Name and Telephone number of agency and University Engineer and other details as directed by Engineer-in-charge as per drawing attached. It is incidental to work & no Extra payment will made to the contractor.

20) **Laboratory Set up**

Field Laboratory:-

~~20.1) The Contractor for the purpose of testing of material shall arrange to provide and maintain fully furnished and adequately equipped field laboratory of adequate floor area as shown in drawing. The field laboratory shall preferably be located adjacent to site or as directed by the Engineer in charge. The field laboratory shall be provided with amenities like water, electric supply etc. to be arranged by Contractor.~~

~~20.2) The floor space requirement shall include office space for Engineer & Contractor's representative, storage of samples, installation of equipment, laboratory table, cup boards, working platform of size 1m x 10 m working space for carrying out various tests, curing tank, wash basin, toilet etc. and the minimum furniture such as office tables & chairs for material engineers, stools, working tables, store accessories.~~

~~20.3) The Cost of Construction of laboratory at work site or plant site as the case may be and cost of furniture, electrical equipments fittings during the currency of Contract is incidental to work and no separate payment will be made for the same to the contractor.~~

~~20.4) If the contractor fails to establish the laboratory within 60 days from the issue of work order an amount of **Rs. 1.50 lacs** will be recovered from forth coming bill payable to the Contractor.~~

~~20.5) After completion of work the above property will be contractor's property.~~

~~20.6) The laboratory established by the contractor shall be manned by a qualified materials Engineer/Civil Engineer assisted by experienced technicians and the setup shall be got approved from the Engineer in charge.~~

~~20.7) The Contractor shall prepare printed proforma for recording readings and results of each type of tests. Such formats shall be got approved from the Engineer in charge. The Contractor should keep a daily record of all the tests carried out by him. Two copies of the test results should be submitted to ^{Contractor} ~~Engineer in charge~~ ^{No of correction} ~~University Engineer~~ within 7 days from the date of testing for examination and approval One copy of test results will be returned to the Contractor by the Engineer in charge for keeping the record of test results in acceptable manner at site of work.~~

20.8) ~~All quality Control register/records shall be maintained by the Contractor and checked by the Engineer in-charge or his representatives regularly.~~

21) ~~Set up of equipments:~~

21.1) ~~The contractor shall have at least following equipments calibrated to the latest date in the laboratory so established. The Contractor will have to carry out the calibration of the equipments from the approved agency as and when directed by the Engineer in-charge at his own cost in cases where the calibration validity stands expired.~~

General:

i)	Balance 20 Kg. Capacity (self indicating)	1 No.
ii)	Electronic balance 5 Kg. Capacity, accuracy 0.5 gm.	1 No.
iii)	Water bath Electrically operated & thermostatically controlled, with adjustable shelves, sensitivity 1°C.	1 No.
iv)	Thermometer: (1) Mercury in glass 0° to 250° (2) Mercury in Steel with 30 cm. stem upto 300°C (Dial type)	2 Nos. 2 Nos.
v)	Kerosene or Gas stove/electric hot plate	1 No.
vi)	Set of IS sieves 45 cm. Dia. G.I. Frame, 125 mm, 100mm, 90mm, 80mm, 63mm, 53mm, 50mm, 45mm, 40mm, 37.5mm, 26.5mm, 25mm, 22.4mm, 20mm, 19mm, 13.2mm, 11.2mm, 9.50mm, 5.6mm, 4.75mm, 4.25mm, 6.3mm, 6mm, with lid and pan (coarse sieve)	1 Set of 23 Nos. sieves.
vii)	Set of IS fine sieves 20 cm. dia. brass Frame, 2.8 mm, 2.36mm, 1.18mm, 0.60mm, 0.30mm, 0.15mm, 0.75mm, 425 micron, 300 micron, 180 micron, 150 micron, 90 micron, 75 micron with lid and pan, (fine sieves)	1 Set of 13 Nos. sieves.
viii)	Glass ware, spatulas, wire gauges, steel scales, measuring tape, enameled tray, porcelain dish, requirement plastic bags, gunny bags, digging tools etc.	As per requirement
ix)	First aid kit	1 No.
a)	Aggregate & Soil testing	
i)	Atterberg limits (liquid & plastic limit) determination apparatus No of correction	1 Set University Engineer
ii)	Density test apparatus (Sand pouring cylinder, tray, can etc.) complete.	1 Set

Contractor

iii)	Aggregate impact value test apparatus.	1 Set
iv)	Flakiness and elongation test gauge	1 Set
v)	Standard measures of 5, 3 and 1 litre	1 Set
vi)	Field density apparatus with cutting tray, chisel, hammer and standard sand	2 Set
vii)	3 meter straight edge and camber plate adjustable type	2 Set
viii)	Measuring Cylinders 3000 ml and 100 ml.	1 No. each
b)	Cement Concrete Testing	
i)	Compression testing machine of 200 tone capacity with two dial gauges.	1 No.
ii)	Cube moulds 15cmx 15cmx15cm	18 Nos.
iii)	Slump testing apparatus	2 Nos.
iv)	Needle vibrator	2 sets
v)	Compacting factor test	2 sets
vi)	Vicat's apparatus for testing setting time	1 No.

e)	Bitumen Testing	
i)	Penetrometer with Standard needles	1 No.
ii)	Centrifuge type bitumen extractor electrically operated complete with industrial benzene	1 Set
iii)	Field density apparatus with cutting tray, chisel, hammer and standard sand	2 Set
iv)	3 meter straight edge and camber plate adjustable type	2 Set
v)	Measuring Cylinders 3000 ml and 100 ml.	1 No. each

CONDITIONS FOR MATERIALS TO BE PROCURED BY THE CONTRACTOR

1) **CEMENT** :-

Cement to be used for works shall comply of the following with the prior approval of Engineer.

a) Ordinary Portland cement 43 grade Conforming to IS: 8112 used in the manufacture of exposed surface of concrete of any element of a structure shall be from the same factory. Independent testing of cement used shall be done by the contractor at site and in the laboratory approved by the Engineer before use. Any cement with lower quality than those shown in manufacture's certificate shall be debarred from use. In case of finally ground cement or imported cement, the Engineer may direct the contractor to satisfy him as to the acceptability of such cement, especially with regard to creep and shrinkage effect. Any consignment or part of a consignment of cement which has deteriorated in any way shall not used in the works and shall be removed from the site by the contractor without charge to the employer.

Cement shall be transported, handled and stored on the site in such manner as to avoid deterioration, contamination. Each consignment shall be stored separately, so that it may be readily identified and inspected and cement shall be used in the sequence in which delivered at site. The contractor shall prepare and maintain proper records on site in respect of the delivery, handling storage and use of cement and these records shall be available for inspection by the Engineer at all times.

b) Use of Portland Pozzolana Cement Conforming to IS : 1489 (Part-I 1991) permissible, subject to the following conditions :-

- i) For the concrete containing PCC Cement, the curing period shall not be less than 14 days.
- ii) The stripping time for removal of form work shall be as under.

		Minimum period before striking form work .
(a)	Vertical formwork to columns, walls, beams.	48 hrs.
(b)	Soffit formwork to slabs (Props to be refixed immediately after removal of formwork)	10 days
(c)	Soffit formwork to beams (Props to be refixed immediately after removal of formwork)	14 days
(d)	Props to slabs i) Spanning up to 4.5m. ii) Spanning over 4.5m.	10 days 21 days
(e)	Props to beams and arches. i) Spanning up to 6m. ii) Spanning over 6m.	21 days 28 days

2) **Sand**

Silt content of sand shall not more than permissible limit. If it is found more than the permissible limit, it should be washed at site by contractor at his own cost.

3) **T.M.T. STEEL/HYSD STEEL**

High Yield Strength Deformed (T.M.T.) bars shall comply with IS :1786 grade Fe-415 and mild still bars shall comply I.S. 432.

All reinforcements shall be free from rust, loose mill scale or coats or oil, paints etc. placing in position for concreting. The Agency should use the Steel manufactured by the Main Producers or authorised conversion agents only. No rerolled steel shall be incorporated in the work.

4) **Bulk/Packed Bitumen**

- i) Only 60/70 grade bitumen shall be used.
- ii) Bitumen brought on site shall conform to I.S.73 of latest edition
- iii) Testing has to be arranged by contractor from recognized Govt. laboratory at his own cost for all tests mentioned in IS-73 of latest edition
- iv) The Contractor shall use Bulk Bitumen obtained from any Government Refinery only.
- v) The material brought by agency will be open to check by Executive Engineer or his representative at all time. He should submit bill from refinery itself only. No other bill than refinery's unit will be accepted by department and no claim of contractor will be admissible.
- vi) For other activities storage weighments specification No. Rd. 42 Pg.217 of Standard Specification of P.W.D. will be referred. Contractor has to arrange own static tank for storage of bulk bitumen.
- vii) If it is decided to procure bulk bitumen the contractor shall intimate Engineer-in-Charge well in advance. Consignment will not be allowed to unload until it's weight is checked on weigh bridge by Departmental persons.

5) **Rejection of Materials Not Conforming to Specification.**

Any stock or batch of materials (s) of which samples (s) does not confirm to the prescribed test and quality shall be rejected by Engineer or his representative and such material shall be removed from site by the contractor at his own cost. Such materials shall not be made acceptable by modifications.

Materials not corresponding in character and quality with approved samples will be rejected by the Engineer or his representative and shall be removed from site immediately and will not be allowed to use for any component of work.

APPENDIX – 1

Statement showing (approximately) Quantity to be brought by the Contractor

Sr. No	Name of Materials	Approximate quantity to be brought by the Contractor at his own cost	Unit	Remarks
1	2	3	4	5
1	Bulk Bitumen VG 30(60/70) Grade	M.T.	One Metric Tonne	<p>1) All required materials will have to be procured and brought by the Contractor at the site at his own risk and cost. The proof of purchase should be produced before execution of work and along with work bill</p> <p>2) Bitumen shall be procured from any Govt. Refinery by the Contractor at his own cost & risk. However proof of purchasing of 60/70 grade bitumen should be produced during the execution of work and along with bill.</p> <p>3) R.C.C. Pipe should be purchased by M.S.S.I.D.C. only.</p> <p>4) Custody of material shall be sole responsibility of the contractor.</p> <p>5) Physical properties shall be conformed with MORT&H/IS specification.</p> <p>6) Stipulated test shall be carried out by the Contractor at his own cost as per the frequency.</p> <p>7) Cement and steel shall be purchased from the manufacturers / main producers only.</p>
2.	Cement (43 grade)	M.T.	One Metric Tonne	
3.	TMT / HYSD/M.S bars	MT	One Metric Tonne	

Contractor

No of correction

University Engineer

**ADDITIONAL CONDITIONS FOR MATERIAL
BROUGHT BY THE CONTRACTOR**

- 1) All the material required for construction for work shall be arranged by the contractor at his own cost. The samples of material to be procured shall be got approved by the Engineer-In-Charge, Material as per approved samples shall only be procured.
- 2) The contractor shall submit periodically as well as on completion of work, an account of all materials brought by him in a manner as directed by Engineer-In-Charge. The contractor shall also furnish monthly account of materials. A separate register shall be maintained on site for recording daily item wise receipt and consumption of Cement, Steel and Asphalt used by him, also item wise consumption of other materials used. This register shall be signed daily by the contractor or his representative and representative of Engineer-in-Charge.
- 3) All the materials required for the work shall be brought by the contractor at his own cost. In each case, certificate for its quality and quantity shall be produced by the contractor and samples of each material shall be got tested from Government Laboratory as mentioned in condition at serial No. 39(4)(1) (General condition) by the contractor at his own cost and the test results of samples shall be supplied to the Department. The material not conforming to the required standard shall be removed at once from the site of the work by the contractor at his own cost.
- 4) Testing of all construction material shall be carried out as per required frequency and specifications. and the charges for testing shall be borne by the Contractor.
- 5) The contractor shall construct shed/sheds as per direction of the Engineer-In-Charge of the work for storing the materials brought at site. The material shall be taken out for use in the presence of the departmental representative only.
- 6) The contractor shall make his own arrangement for the safe custody of the materials which are brought for construction of work.
- 7) The contractor shall not transfer any material once brought at work site without prior written permission from Engineer-In-Charge.
- 8) In case the materials brought by the contractor become surplus owing to the change in the design of the work, the materials should be taken back by the contractor at his own cost after prior permission of the Engineer-In-charge.
- 9) The charges for conveyance of materials from the place of delivery to the site of work and the actual spot on work site shall be entirely borne by the contractor. No claim on this account shall be entertained.
- 10) The contractor shall furnish the account of asphalt brought by him at each time before placing orders for further supply. Also the same should submit on completion of the work, final account of the material used by him to the Department. This account will be scrutinized by the Engineer-In-Charge.
- 11) Contractor should bring the bitumen from Govt. refinery only
- 12) All empty asphalt drums shall be the property of contractor and the same shall be removed immediately after completion of work.

Contractor

No of correction

University Engineer

- 13) Agency shall ensure the laying temperature of hot mix material as specified & accordingly he shall make necessary arrangement for preventing loss of temperature of hot mix material during transit from location of drum mix plant to work site.
- 14) The agency should use the steel manufactured by the main producer only.
- 15) The contractor shall procure the RCC pipes if required for this work from M.S.S.I.D.C. only. Proof of purchasing of pipe should be submitted.
- 16) The contractor should inform the schedule of arrival of Bouzers to the Engineer-in-charge time to time.
- 17) The contractor shall also arrange to provide field laboratory at plant site along with all necessary equipment & materials for testing the grade of bitumen procured by him.

Contractor

No of correction

University Engineer

ADDITIONAL CONDITIONS FOR BITUMEN

- 1) The contractor shall use Bulk Bitumen, VG30(60/70) grade received from the Government Refinery only. Bitumen received as above will be entirely consumed in the respective item & work as directed by the Engineer-in-charge.
- 2) Conveyance charges of Bitumen, VG30(60/70) grade (including loading/unloading etc.) from Government Refinery to the hot mix plant site will be borne by the Contractor
- 3) The Contractor should be aware that delay may occur in getting the bulk asphalt to be supplied at the refinery. They are, therefore, advised to indent for their requirement, sufficiently in advance allow for the period usually taken for supplying Bulk Bitumen.
- 4) The contractor shall submit periodically as well as on completion of work, an account of all materials issued to him in a manner as instructed by the Engineer-In-Charge. In addition, a separate register shall be maintained on site for recording daily item wise asphalt consumption of the work (Giving details of quantities of items of executed and asphalt required for each of them) as directed and shall be signed daily by the contractor or his representative, and got signed daily from the representative of the Engineer-in-Charge.
- 5) The bitumen shall be made available on working days only during working hours. Bulk Asphalt will be delivered as per the rules of the concerned Govt. refinery. The contractors are expected to know all the rules and regulations framed by the refineries in this behalf.
- 6) The Contractor should note that the bouzars when received from Government are always unloaded at the plant in the presence of the Junior Engineer/ other representative of the Department during 8.00 A.M. to 6.00 P.M. only. He should arrange to give advance intimation in this behalf to Engineer –in-charge so that the arrangement to depute the Jr.Engineer /Representative at the plant site can be made.
- 7) Since the work lies in agricultural area the contractor shall have to make adequate arrangement for regulating the farmers and their animals by providing barricading whenever necessary and by displaying adequate number of requisite sign, and caution board etc. The work shall have to be planned properly to avoid any inconvenience to the local people.
- 8) A detailed programme of completion of work shall be enclosed with the tender.
The contractors should note that once, the work is started, he will not be allowed to operate his plant, for any work other than the work of **University Engineer, Public Works Division Akola** without the specific permission in writing from the **University Engineer, Public Works Division Akola** Any breach of this condition will be seriously dealt with.

Contractor

No of correction

University Engineer

DECLARATION OF THE CONTRACTOR

I/We hereby declare that I/We have made myself/ourself thoroughly conversant with the local conditions regarding all materials and labour on which I/We have based my/our rates for this work. The specifications, local existing condition and lead of the materials on this work have been carefully studied and understood by me/us submitting the tender. I/We undertake to use only the best materials approved by the University Engineer-in-charge of the work or his duly authorised representative before starting the work and to abide by his decision. I/we shall maintain/rectify the entire works as per standard specification of P.W.D. (Red Book) and M.O.R.T. & H. Specification as soon as the damage occurs upto the expiry of defect liability period without putting forth any reason for the failure.

**Contractor's Signature
and seal of contractor**

Contractor

No of correction

University Engineer

ANNEXURE-I**QUALITY CONTROL TESTS & THEIR FREQUENCIES**

Sr.No.	Material	Test	Frequency of Testing	Remarks
1	Sand	i) Fineness Modules	At the beginning & if there is change in source	
2	Metal	i) Crushing Value	One test per 200 Cum or part hereof	P.W.D. hand book I.S.2386 Part -IV
		ii) Impact Value		
		iii) Abrasion Value		
		iv) Water Absorption		
		v) Flakiness Index		
		vi) Stripping value		
		vii) Gradation		
3	Cement Concrete	Compressive Strength	Upto 5 Cum – 1 set	M.O.R.T.& H. Specification. 1716 (Fourth revision 01)
			6-15 – 2 sets	
			16-30 – 3 sets	
			31-50 – 4 sets	
			51 & Above – 4 sets + 1 additional 50 Cum or part thereof	
4	Cement	i) Compressive Strength	One test for each consignment of 50 MT (----- bags) or part thereof.	I.S. 8112 - 1989
		ii) Initial Setting Time		
		iii) Final Setting Time		
		iv) Specific Gravity		
		v) Soundness		
		vi) Fineness		
5	Steel	i) Weight per meter	One test for every 5.0 M.T. or part thereof for each diameter.	I.S. 432 IS 1786-1985
		ii) Ultimate Tensile Stress		
		iii) Yield Stress		
		iv) Elongation		
6	Granular Sub-Base	i) Gradation	One test per 200 cum	MORT&H specification Table 900-3 (Fourth Revision 2001)
		ii) Atterberg limits	One test per 200 cum	
		iii) Moisture content prior to compaction	One test per 250 cum	
		iv) Density and compacted layer	One test per 3000 Sqm	
7	Water Bound Macadam	i) Aggregate impact value	One test per 200 cum	MORT&H specification Table 900-3 (Fourth Revision 2001)
		ii) Gradation	One test per 100 cum	
		iii) Flakiness index & Elongation index.	One test per 200 cum	
		iv) Atterberg limits of binding material.	One test per 25 cum of binding material.	
		v) Atterberg limits of portion of aggregates passing 425 Micron.	One test per 100 cum of aggregate	
8	Prime coat/tack coat/ for spray Contractor	i) Quality of Binder	No. of samples per lot and tests as per I.S. 73 I.S. 217 and I.S. 8887 as applicable.	MORT&H specification Table 900.4 (Fourth Revision 2001)

No of correction

University Engineer

		ii) Binder Temperature	At regular close intervals,	
		iii) Rate of spread of binder.	1 test per3000 sqm. and not less than two tests per day.	
9	Seal coat/ Surface Dressing	i) Quality of Binder	Same as mentioned under Sr.No.8	MORT&H specification Table 900.4 (Fourth Revision 2001)
		ii) Impact Value/Los Angle's Abrasion value	1 test per 50 cum of aggregate.	
		iii) Flakiness & Elongation Index	1 test per 50 cum.	
		iv) Stripping value of aggregate (Immersion tray test)	Initially 1 set of 3 representative specimen for each source of supply subsequently when warranted by change in the quality of aggregates.	
		v) Water Absorption		
		vi) Water sensitivity of mix (if required)		
		vii) Gradation.	1 test per 25 cum	
		viii) Soundness.	Initially one determination by each method for each source of supply, then as warranted by change in the quality of aggregate.	
		ix) Temp. of binder	At regular close intervals,	
		x) Rate of spread of materials	1 test per3000 Sqm. and not less than 2 tests per day.	
		xi) Percentage of fractured faces	When gravel is used. One test per 50 cum.,.	
10	Open graded premix surfacing/ Close graded premix surfacing	i) Quality of Binder	Same as per Sr.No.8	MORT&H specification Table 900.4 (Fourth Revision 2001)
		ii) Impact Value/Los Angle's Abrasion value	Same as per Sr.No.9	
		iii) Flakiness & Elongation Index	Same as per Sr.No.9	
		iv) Stripping value	Same as per Sr.No.9	
		v) Water Absorption	Same as per Sr.No.9	
		vi) Water sensitivity of mix	Same as per Sr.No.9	
		vii) Gradation.	Same as per Sr.No.9	
		viii) Soundness.	Same as per Sr.No.9	
		ix) Temp. of binder	At regular close intervals,	
Contractor		No of correction	University Engineer	

		x) Binder content	1 test per 3000 Sqm. and not less than 2 tests per day.	
		xi) Rate of spread of materials	Regular control through checks of layer thickness.	
		xi) Percentage of fractured faces	Same as per Sr.No.9	
11	Bituminous Macadam/BBM	i) Quality of Binder	Same as per Sr.No.8	MORT&H specification Table 900.4. (Fourth revision 2001) Fo BBM-Annexure-A on page 102.
		ii) Impact/ Abrasion value	Same as per Sr.No.9	
		iii) Flakiness/ Elongation Index	Same as per Sr.No.9	
		iv) Stripping value	Same as per Sr.No.9	
		v) Water sensitivity of mix	Same as per Sr.No.9	
		vi) Water absorption	Same as per Sr.No.9	
		vii) Soundness	Same as per Sr.No.9	
		viii) Percentage of fractural faces	Same as per Sr.No.9	
		ix) Gradation	2 tests per day per plant both on individual constituents and mixed aggregates from dryer.	
		x) Binder content & aggrt. Grading	Periodic subject to minimum of 2 tests per day plant.	
		xi) Control of temp of binder & aggregates for mixing & of the mix at the time of laying & rolling.	At regular close intervals.	
		xii) Density of compacted layer	Regular control through check of layer thickness. As directed by the Engineer-in-charge.	
12	Bitumen (Pure)	i) Penetration ii) Ductility iii) Softening point iv) Flash/fire point v) Specific gravity	2 test per lot as per I.S. 73	University Engineer
	Contractor	No of correction		

ANNEXURE-II

SPECIFICATION FOR BITUMINOUS BOUND MACADAM

Item: Providing and constructing 75 mm/ 50 mm thick bituminous bound macadam (BBM) road surface including all materials, preparing the existing road surface, spreading 40 mm stone metal lexicess 30% crusher broken metal + 70% hand broken (by breaking rubber obtained, by blasting) heating and spraying the bitumen 60/70@ 2 kg/sqm, spacing 12 mm size chips, compacting with static roller.

1) General :

The work consists of supply of materials and labour required for providing and laying bituminous bound macadam surface for compacted thickness of 75mm/50mm. The item includes preparing the existing road surface to receive the bituminous bound macadam course i.e. picking the existing W.B.M. surface or application of tack coat on existing B.T. surface spreading of 40mm size metal layer in required thickness with compaction with power roller, heating and spraying bitumen with required thickness with compaction with power roller heating and spraying bitumen with sprayer etc. spreading key aggregates, 12 mm. chips, and final compaction with power roller, etc. complete and finishing in accordance with the requirement of and in close conformity with grades, lines, cross section and thickness as per approved drawings etc. complete.

2) Diversions:

Temporary diversions shall be constructed and maintained by the contractor at his own cost. Diversions shall be watered if dust is likely to blow on to the road being Bituminised.

3) Materials :

(A) Aggregates: The aggregates for providing B.B.M. surface shall comply with specification Nos. Rd.41 for 40 mm and 12 mm size metal, and shall normally comply with the following regarding to size and quality of aggregate and grade and quantities of bitumen.

Sr. No.	Description	Rate of application for 100 sqmt.			
		75 mm		50 mm	
		On asphalt surface	On WBM Surface	On asphalt surface	On WBM Surface
a)	40 mm size hand broken metal	9.00 Cum	9.00 Cum	6.00 Cum	6.00 Cum
b)	12mm size chips	1.80 Cum	1.80 Cum	1.20 Cum	1.20 Cum
c)	Bitumen for grouting I.S. penetration or S.65 with (60/70 grade) penetration	200 Kg	200 Kg	175 Kg.	175 Kg.
d)	Tack coat for existing Bitumen surface with 60/70 bitumen	50 Kg	- No of correction	50 Kg	-

University Engineer

Note : 70% Hand broken metal and 30% crusher broken metal of total quantity for 40 mm size metal shall be used.

(B) Bitumen :

The bitumen shall be paving bitumen of suitable penetration grade within the range S-35 to S-65 i.e. 60/70 as per Indian Standards Specifications for "Paving Bitumen" IS 73-1992.

4) Preparation of Base:

Any pot holes in the existing bituminous road surface and broken edges shall be patched well and the surface shall be brought to correct level and camber with additional metal and bitumen as required which will be paid separately. Before starting the work the bituminous surface shall be swept clean of all the dirt, mud cakes, animal droppings & other loose foreign material.

If so required by the Engineer, the contractor shall keep the side width & nearby diversion watered to prevent dust from blowing over the surface to be bituminous. Existing water bound macadam surface shall be picked for and surface loosened for a dept of 2.5 cm and the picked surface shall be brought approximately to the correct camber and section Edge line shall be correctly marked by dog belling the surface to form a continuous the notch.

There shall always be sufficient length of prepared surface ahead of the bituminous surfacing operations as directed by the Engineer to keep these operations continuous.

5) Tack Coat on bitumen surface:

Applying tack coat for existing B.T. surface only at the rate of 50 kg/100 m² as per specification No. Rd-47.3.3.

6) Picking of existing W.B.M. Surface :

Picking of existing W.B.M. surface for receiving bituminous bound macadam as per Rd. 33.

7) Spreading and Compaction

7.1 Spreading of 40 mm metal (70% Hand broken & 30% crusher broken):- 40 mm metal shall be spreaded evenly at the specified rate of 9 cubic metres/6 cubic metre per 100 squares of area so as to form a layer over the width of road with correct camber/super elevation as required. Any foreign matter, organic matter, dust, grass etc. shall be removed immediately. The sections shall be checked with camber board and straight edge batten etc. Any irregularities shall be made good by adding aggregates in case of depressions and removing aggregates from high spots.

7.2 Compaction of 40mm size metal :- The surface of 40 mm metal layer after bringing to necessary grades and sections shall be rolled with the use of 8 to 10 tonnes power roller. Roller shall commence from the edges and progress toward the centre longitudinally except on super elevation portion it shall progress from the lower to upper edges parallel to the centre line of pavement. Whether the roller has passed over the whole area and high spot or depressions which become apparent shall be corrected by removing or adding aggregates. The rolling shall then continued till the entire surface has been rolled to desired compaction such that there is no crushing

of aggregates and all roller marks have been eliminated. Each pass of roller shall uniformly overlap not less than one third of the track made in the preceding pass.

8) Application of Bitumen :

Bitumen of I.S. grade supplied for the work shall be heated to temperature of 177 Celsius to 191 Celsius (350 F to 375 F) in a bitumen boiler and temperature shall be maintained at the time of actual application. The hot bitumen shall be applied through a pressure on the road surface uniformly at the rate of 200 kg. Per 100 sqm. The road surface shall be divided into suitable rectangles marked by chalk so as to ensure correct rate of application of the bitumen.

9) Key Aggregates:

On Completion of bitumen application, 12 mm size key aggregates shall be spread immediately at a uniform rate of 1.8 cubic meters/ 1.2 cubic meters per 100 sqm. of area when entire surface in hot condition Brooms shall be used to ensure even distribution of key aggregates.

10) Final Compaction:

Immediately after spraying of bitumen and spreading of key aggregates, the surface shall be rolled with a power roller to obtained full compaction and to force the blindage of key aggregates in to the interstice of the course aggregate. The rolling shall continue till the asphalt surface hardens and key aggregates stop moving under power roller.

11) Surface Finish and Quality Control:

The surface finish shall conform to requirements of clause 902 of specification for roads and bridges by Ministry of surface Transport (Copy enclosed) Quality control Test and their frequencies shall be as per table below.

Sr.No.	Test	Frequency
1	Quality of binder	Two samples per lot to be subjected to all or some test as directed by the Engineer.
2	Aggregate Impact Value	One test per 200 cubic meter of aggregate.
3	Flankiness Index and Elongation Index	One test per 200 cubic meter of aggregate.
4	Stripping value	Initially one set of three representative specimen for each source of supply subsequently when warranted by changes in the quality of aggregate.
5	Water absorption of aggregates	Initially one set of three representative specimen for each source of supply subsequently when warranted by changes in

		the quality of aggregate.
6	Aggregate grading	One test per 100 cubic meter of aggregate
7	Temperature of binder at application	At regular close intervals.
8	Rate of spreading for binder.	One test per 3000 square meter of area.

12) Item to Include:

- i) Diversions unless separately provided in the tender
- ii) Preparing the road surface.
- iii) Applying tack coat on existing B.T. or picking the existing W.B.M. surface.
- iv) Supplying spreading and compaction of 40 mm and 12 mm size aggregate.
- v) Supplying, heating and spraying of bitumen.
- vi) Supplying and spreading and compaction of 12 mm size chips (By Power roller.
- vii) All labour, materials, including bitumen and aggregates used of tools, plants and equipment for completing the item satisfactorily.

13) Mode of Measurement and Payment.

The contract rate shall be for 1.00 Sqm. The measurements shall be for the width of the road as executed, limiting it to the width specified or as ordered by the Engineer and the length measured along the centerline. The measurement dimensions shall be recorded correct upto two places of decimals of a meter and the area worked out correct upto one place of decimal of a Sqm.

Contractor

No of correction

University Engineer

ANNEXURE-III

Specifications for Traffic Safety Measures During Widening of Roads where traffic can be passed over part width

Providing Traffic Safety Measures on Road during Widening of roads Comprising of Traffic Sign Boards and devices as per detailed design, drawing, specification and as directed by Engineer-in-charge.

SPECIFICATIONS :-

The item includes providing traffic safety arrangements required for traffic control near has stretch of road where widening work is being taken up, before actual start of widening work of road. The contractor will have to provide the traffic safety arrangements as per the detailed drawing. The traffic safety arrangements will have to be got approved from the Engineer-in-charge by the Contractor before taking any construction activities for Widening of works.

The Engineer-in-charge shall get himself satisfied about the traffic safety arrangement provided on the work site before allowing contractor to dismantle the existing structure and a certificate to get effect shall be recorded in the Measurement Book.

- A) The Sign No. 1 "SPEED LIMIT (20)" shall be placed at a distance of 120 m away from the point where the transition of carriageway begins. The Sign Board shall be of size 60 cm dia. Having white background and red border and the numericals shall be in black colour as per IRC 67-1977. Distance between Sign No.2 shall be minimum 20 m.
- B) The Sign No.2: "NARROW ROAD AHEAD" shall be placed at a distance of 80 m away from the point where transition of carriageway starts. The Sign board shall be of an equilateral triangle of size 90 cm. having white background. Retro reflective border in Red colour and non reflective symbol of black colour as per IRC: 67-1977.
- C) The sign No.3: The sign board indicating "MAN AT WORK" shall be placed at a distance of 40 m. away from the point where the transition of carriageway starts.. The sign board shall be of an equilateral triangle of size 90 cm. having white backgrounds. Retro reflective border of Red colour and non reflective symbol of black colour as per IRC 67-1977.
- D) The sign No. 4: The board displaying the message "GO SLOW-WORK IN PROGRESS" shall be placed near point of transition of carriageway. The sign board shall be of size 1.0m x 1.0m having red background and message in white colour.

Contractor

No of correction

University Engineer

- F) Retro Reflective Strong Inviolable Stand Type Barrier painted black and having white Retro Reflective Strips for closer of traffic shall be placed to cover the entire width of carriageway including shoulder as per drawing. The Barricades shall not be removed unless permission is given by the responsible officer of the rank not less than Sectional Engineer. The Barricade shall have two plates of size 1.30 x 0.20m painted black and shall have white Retro Reflective Strips and mounted on angle iron stand of 1.0 m height.
- G) Yellow light flasher shall be kept lit from sunset to sunrise, 2 nos. along with white painted line and 2 Nos. at barriers on both sides as indicated in the drawing.
- H) Informatory sign board indicating name or work, estimated cost, completion period defect liability period. Name of contractor with telephone no. Name of Engineer with telephone no. shall provided between sign board no.4 and the barricade. The Sign board shall be having green back ground and white messages retro reflective as per IRC :67-1977.
- J) This is incidental to work (being Safety Measures) and no payment will be made on account of this

Contractor

No of correction

University Engineer

FINANCIAL RULE FORM NO. 2-A
(See rule 51 - 4)
GUARANTEE BOND FOR SECURITY DEPOSIT

In consideration of the **GOVERNOR OF MAHARASHTRA** (hereinafter referred to as “**THE GOVERNMENT**”) having agreed to exempt to _____ (hereinafter referred to as “**THE CONTRACTOR**”) from depositing with the Government in cash, the sum of Rs. _____ (Rs. _____ only) begging the amount of Security Deposit payable by the Contractor to the Government under the terms and conditions of the Agreements dated the _____ day of _____ and made between the Government of the one part and the Contractor of the other part (hereinafter referred to as “the said Agreement”) for _____ as security for the observance and performance by the contractor of the terms and conditions of the said agreement on the contractor furnishing to the Government a Guarantee in the prescribed form of a Scheduled Bank in India being in fact these presents in the like sum of Rs. _____ (Rs. _____ only). We _____ Bank Limited registered in India under _____ Act and having one of our local Head Office at _____ do hereby.

1) **Guarantee to the Government -**

- a) Due performance and observance by the Contractor of the terms, _____ covenants and conditions on the part of the Contractor contained in _____ the said Agreement, and
- b) Due and punctual payment by the contractor to the Government of all _____ sums of money, losses, damages, costs, charges, penalties and expenses payable to the Government by the Contractor under or in respect of the _____ said Agreement.

2) Undertake to pay to the Government on demand and without demur and not with standing any disputes raised by the Contractor(s) in any suit or proceeding filed in any Court or Tribunal relating thereto the said sum of Rs. _____ (Rs. _____ only) or such less sum as may be demanded by the Government from use our liability hereunder being absolute and unequivocal and agree that.

3)a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said Agreement and that same will continue to be enforceable till all

the dues of the Government under or by virtue of the said Agreement have been duly paid and its claims satisfied or discharged and till the Government certified that the terms and conditions of the said Agreement have been fully properly carried out by the Contractor.

b) We shall not be discharged or released from the liability under this Government by reasons of -

- i) ~~Contractor~~ any change in the constitution of the Bank or the Contractor, or ~~No of correction~~ University Engineer

- ii) any arrangement entered into between the Government and the Contractor with or without our consent,
- iii) any forbearance or indulgence shown to the Contractor.
- iv) any variation in the terms, covenants of conditions contained in the said Agreement,
- v) any time given to the Contractor, or
- vi) any other conditions or circumstances under which, in law, a surety would be discharged.
- c) Our liability hereunder shall be joint and several with that of the Contractor as if we were the principal debtors in respect of the said sum of Rs. _____ (Rs. _____ only) and
- d) We shall not revoke this guarantee during its currency except with the previous consent in writing of the Government.

IN WITNESS WHERE OF The Common Seal of _____ has been here unto affixed
this day of _____ The common seal of _____

Was pursuant to the resolution of the Board of Directors of the company dated the _____ day of _____
herein affixed in the presence of who, in token thereof, have hereto set their respective hands in the presence of -

1) _____

2) _____

Contractor

No of correction

University Engineer

LIST OF APPROVED MATERIAL FOR ELECTRICAL WORKS

8.1 LIST OF ELECTRICAL MATERIAL:

Sr. No.	Name of material	Company name
1	2	3
1	Fluorescent tube/LED	Philips / Wipro /Crompton
2	CFL Lamps	Philips/Wipro/HPL/Crompton /
3	Ceiling Fans	Cromptons / Orient / Havells / Usha
4	Exhaust Fans	Cromptons / Havells / Orient/ Polycab/ Panasonic/ usha
5	Modular Switches, Accerracies	Anchor /Havells/RR Electrical/Vinay/ Modular/ Cromptons/ wipro/ Polycab/ legrand/HPL/Precision/ Panasonic/ ABB/ L&T
6	MCB's - 10 KA. D,B	Legrand / Siemens /Kent/RR Electrical/ Wipro/ L&T/ C & S/Polycab/ Hager/HPL/ Anchor/In-do-asian Honeywell/ Kent/Havells
7	ELCB/RCCB - 10.0KA.D,B, ACB	Legrand / Wipro/Siemens/L&T/ C&S/polycab /HPL/Panasonic/Indo-Asian/ Honeywell/RR Electrical/ Kent/ABB
8	HRC Switch Fuse Units	L&T / GE / C&S/HPL/Indo-Asian
9	CFL Holder	Anchor /Havells/Bajaj/ wipro/ Polycab/ HPL/Precision/ Panasonic/ L&T/Modular
10	Wires: 1100V/660V Grade FRLS	Finolex /Polycab/ Anchor/ L&T / KEI /RR cable
11	PVC Conduits and Accessories	Precision /polycab/Anchor/Pressfit/ AKG/Kent
12	Distribution Boards	Legrand / Siemens /L&T/ C&S/ Polycab/Wipro/ HPL/ Panasonic/ Hager/ Honeywell
13	Load break switch	Legrand / Siemens /L&T/Hager/HPL
14	RG6 Outlets	Philips / Legrand/polycab/HPL/Panasonic
15	RG6/11 Coaxial Cable	Finolex / Polycab/Panasonic /RR cable/Kent
16	CAT 6 Cable	Finolex / L&T/ Dlink /Polycab/HPL/RR Cable/ Panasonic/ Kent
17	CAT 6 I/O Socket	Dlink / Lucent / Molex.
18	Cables Glands and Lugs	Finolex/polycab
19	LED Streetlight Fittings	Wipro / Philips /Havells/ C&S/ Polycab/

Contractor

No of correction

University Engineer

Sr. No.	Name of material	Company name
1	2	3
		Panasonic/HPL/Wipro/Crompton/Jaquaar/ Kent/Surya/RR Electric/ Halonix
20	LED Flood Light	Wipro / Philips / Havells/ C&S/ Polycab /Panasonic/HPL/Wipro/Crompton/Jaquaar /Kent/Surya/ RR Electrical/Halonix
21	LED Pathway Light	Wipro / Philips / Havells/ C&S/ Polycab / Panasonic/HPL/Wipro/Crompton/Jaquaar /Kent/Surya/ RR Electrical/Halonix
22	CFL Gate Light	Wipro / Philips / Havells/Panasonic/Polycab/Crompton
23	XLPE Cables and Accessories	Polycab / Havell's / Finolex/ KEI /Anchor/HP/RR cable/Rotoplast/Kent
24	Telephone Wires	Finolex /RR cable/Anchor/Polycab/ Epsilon/HPL
25	Aluminum Raceways	Jindal / Bentec/Honewell
26	Industrial Sockets	Legrand / L&T/HPL
27	Changeover Switch	L&T/ HPL / Havells / C&S/Siemens/Wipro
28	Capacitors	L&T / BENTEC
29	Lightning Arrestor	Siemens / Crompton.
30	BUSBAR	L&T/HPL/BENTEC
31	Main LT Panel / APFC Panel	Siemens/ L&T /Indian Electrical /Indo- Asian/HPL/AKG/Samcon
32	L.T. Feeder Pillar	Siemens/ L&T /Indian Electrical /AKG /SAMCON
33	Metering Cubicle	Siemens/ L&T /Indian Electrical
34	11KV isolator and D.O. fuse.	Topaz / Siemens
35	Distribution Transformer	Crompton, ABB,L&T, Siemens, MSEDCL/ Approved
36	Diesel Generator Set	Kirloskar /Cummins / Cromptons/Sterling Wilson/Powerica/Greaves Cotton
37	Lift	Schindler / OTIS / Thyssenkrupp
38	Water Pumps	Kirloskar / Crompton
39	Solar Water Heating Systems	Tata Solar / Jain Solar / Surya/polycab/bosch/Havells/Panasonic/Warae
40	Video Door phone	Zicom /Legrand/Panasonic/Hikvision
41	VDP/Panic Switch/ Intercom 3in 1 system	Legrand/Panasonic/Digital Dreams
44	Audio System	Bose/Senneheiser
45	Water Heater	Bajaj/Recold/Crompton
46	MCB,MCB,DB,MCCB,ACB	Leagrand/Seimens/L&T/ABB/C&S/ESCO,Ind

Contractor

No of correction

University Engineer

Sr. No.	Name of material	Company name
1	2	3
		oasian/-/HPL.
47	Floor Mounting MCCB Panels	ABB/Snider/Seimens/L&T/ C&S/Indoasian/HPL
48	Pumps	Kirloskar/Crompton/KSB/ CRI
49	Octagonal/Conical/Highmast Pole	Bajaj/Transrail/Surya/Volmont/Utkarsh
50	Decorative Poles	Wipro/Suncity/ K-Lite
51	Decorative Fitting	Wipro/Suncity/ K-Lite/Philips
52	Solar Power Generator	Havells/Panasonic/Waze
53	Street Light Poles	Havells/Panasonic/Waze/

APPROVED MAKES FOR FIRE FF and FAS, FA SYSTEM		
Sr. No.	Item Description	Approved Makes
1	Main & Jockey Fire Pumps	Kirloskar/Armstrong/Xylem/ ABB/Wilo(Mather+Platt)
2	Electric Lt Motors	ABB/WEG/Siemens/ Kirloskar/Crompton
3	Standby Diesel Engine Driven Pumps	Kirloskar/Mather & Platt/ Armstrong/Patterson/ Pentair/Clark
4	GI Pipes	Jindal / Tata Steel /Maharashtra Seamless
5	Fire Brigade Connections	Newage /HD Fire/Shah Bhogilal
6	Di Body Gate Valves	Viking/Victaulic/Tyco/Fivalco/Kirloskar/Hd Fire
7	Pressure Gauges	Waree, Wika, Ashcroft, Baumer/Dwyer
8	Water Flow Meters	Gerand / Siemens/Krohne Marshall / Dwyer/Any UI Listed/Any Fm Approved Pumps
9	Fire Hose Boxes	Newage/Venus
10	Check Valves/ Nrv	Kirloskar/Audco/Tyco/C &R
11	Y Type/Pot /Bucket Strainers	Appollo Valves/Alfa Valves/Bombay Chemical Equipment Co.
12	Branch Pipes	Newage/Shah Bhogilal
13	CI Body Gate Valves	Viking/Victaulic/Tyco/Fivalco/Kirloskar/Hd Fire /Audco
14	Globe Valves	Viking/Victaulic/Tyco/Fivalco/Kirloskar/Hd Fire /Audco/Leader
15	Ball Valves	Claval/Tyco/Fivalco/Kirloskar/Hd Fire /Audco/Leader
16	Hose Reels	Newage/Minimax/Jyoti Fire
17	Alarm Valves	Hd Fire/ Tyco/Viking/Reliable
18	Sprinkler Gong	Hd Fire/ Tyco/Viking/Reliable
19	Flow Switches	System Sensor/Indfoss/Danfoss/Potter/Dwyer
20	Fire, Smoke Detectors, Manual CallPoint, Monitor & Control Modules	Honeywell / Symplex /Notifier USA (Present System At Actrec)

21	Sprinkler Heads	Tyco / Reliable/Viking/HD Fire
22	Pressure & Level Transmitter	Honeywell/Siemens/Emerson/Yokogawa
23	Pressure Switches	System Sensor/Indfoss/Danfoss/Potter/Dwyer
24	Electrical & Control Cables	Polycab/Cci/RR Cables/ Havells/ Metaplast /Associated
25	Auto Transfer Switch	Siemens/L&T/Schneider/Asco/Emerson
26	MCCB & MCB	Siemens/L&T/Schneider/Asco/Emerson/ ABB/ Legrand
27	Fire Pumps Mcc Electrical Panel	Elecmec/ Siemens/L&T/Indcon/ Havells
28	Push Button Switches	Siemens/L&T/Schneider/Connectwell/Technik/ ABB/ Seimmery
29	Cable Terminations	Connectwell/Wago/Elmex
30	Voltmeter, Ammeter	Kaycee/Rishabh/Meco/Me
31	Load Manager	Siemens/L&T/Schneider/Asco/Emerson/ Selec/Conzerve
32	GI Perforated Cable Trays	Elcon/Aditya Steel/Indal/Sai Cable Trays/Legrand
33	Copper Earthing Electrodes	Spa Infrastructure/Isg Global/Galaxy/SGI/ABB/JEF
34	Fire Extinguishers	Safex/ Kanex/ Bharati Fire/ Minimax/ Intime
35	Chain Pulley System Motorized	Hercules/Crane /Titan Make Or Eqvt.
36	Led Light & Electrical Fittings	Philips/Bajaj/Crompton/Anchor/
37	Indicating Lamps On Mcc Panel	Teknic Or Eqvt.
38	Dc Relay	Oen/Pla
39	Current Transformers	Automatic Electric/Me
40	Light Fittings	Philips/Bajaj/Crompton/Anchor/
41	Electric Fittings	Anchor/Roma/Havells/Hager/Schneider
42	Cable Glands	Baliga/ Flameproof Equipment/ Fcg/ Ex Protecta
43	Pressure Relief Valve On Network	Frenger Lesser/Tyco/ Claval
44	Pressure Relief Valve In Pump House	Tyco/ Claval

LIST OF APPROVED MAKES for HVAC

Sr. No.	Item	Manufacturer/ Brand Name
1.	AC UNITS (VRF/NON VRF)	Daikin/Carrier/Mitsubishi/Ogeneral
2.	Refrigerant Pipes & Fittings	Maxflow/Mandev/Total line
3.	Centrifugal fans	Kruger/Nicrota/Systemair
4.	Cabinet/Circular Fan	Kruger/Nicrota/Systemair/VTS
5.	Anchor Fasteners	Hilti/ 3M/Canon
6.	GI Sheets	Jindal/TATA/SAIL/ Universal/ ISPAT
7.	Factory Fabricated Ducts	Roltastar/ZECO/Asawa
8.	Damper	Dynacraft/Cosmos/Ravistar/Carryaire
9.	Fire Dampers	Dyanacraft/George & Ravi/Carryaire/ Cosmos
10.	Aluminium Grilles/Diffuser	Dyanacraft /Cosmos/ Ravistar/Carryaire

11.	Acoustic Insulation	Armasound
12.	Disc Valve	Dyanacraft /Cosmos/ Ravistar/Carryaire
13.	Nitrile Rubber Insulation	Superloan/Total lane (9mm)
14.	Under-deck Insulation	Supreme/Owens Corning
15.	UPVC Pipe	Supreme/Prince/Airtech
16.	Drain Pipe/Refrigerant Pipe/Insulation	Superloan/Total lane (9mm)
17.	Switchgear, Push Buttons & Indicating Lamps	L&T/ABB/SIEMENS
18.	Motors	L&T/ABB/SIEMENS
19.	AC Controllers	Belimo/ABB/SEIMENS/Honeywell/Schiendler
20.	Actuators (Motorized)	Belimo/ABB/SEIMENS/Honeywell/Schiendler
21.	VFD	L&T/ABB/SIEMENS
22.	Anchor Fasteners	Hilti/3M/Canon

LIST OF IS – CODE :

Sr. No.	Item	Manufacturer/ Brand Name
1.	IS : 277-1977	Galvanized steel sheet (plain & corrugated) (Amendment - 01)
2.	IS : 655-1963	Metal Air Duct (Amendment - 02)
3.	IS : 659-1964	Safety Code for Air conditioning (Amendment - 01)
4.	IS : 660-1963	Safety Code for Mechanical refrigeration
5.	IS : 900-1992	Code of practice for Installation & Maintenance of Induction Motors
6.	IS : 2441-1984	Code of practice & measurement procedure for testing refrigerant compressors (Amendment - 01)
7.	IS : 4894-1987	Test code for Centrifugal Fans (Amendment - 01)
8.	IS : 5111-1993	Code of practice & measurement procedure for testing refrigerant compressors (Amendment - 01)
9.	IS : 7613-1975	Method of Testing panel type air filter for Air conditioning & ventilation purpose
10.	IS : 3588-1987	Specification for electrical axial flow fans
11.	SMACNA – 1995	Sheet metal – Ducting, Manufacturing & Installing (low & high pressure ducting)
12.	BS.EN 779 : 1998	Air Filters.

Contractor

No of correction

University Engineer

Notes:

- 1 The items having rating of “ Four star and above” Standardized and labeled by Bureau of Energy Efficiency shall be invariably used.
- 2 Ceiling Fans having Five star rating shall be used.
- 3 The Make other than above if required, University Engineer shall take prior approval of the office confirming that material is either approved by Chief Engineer (Electrical) P.W. Dept., Mumbai OR have ISI mark.
- 4 Samples of material during found unsatisfactory in that case the agency will have to replace the material free of cost.
- 5 The names of companies / manufacturer are given for guidance. The materials shall be used after obtaining approval from Client. Approved samples shall preserved in sample room at site of work to ensure the quality / make for actual execution at site of work, No deviation from approved sample is allowed unless approved by Client.
- 6 No extension of time shall be granted because of delay in getting approval from Client.
- 7 The Client reserves right to ask for invoices and other details, if found necessary.
- 8 Client reserves the right to reject material if the same is not approved or substandard material used by Contractor at any stage (i.e. even during Defect LiabilityPeriod).
- 9 The contractor shall provide test certificates from the approved laboratories.
- 10 All the material shall be of first quality and ISI marked.
- 11 Certification of Client regarding presence during testing and sample approved is mandatory.
- 12 Client certification of all materials, centring materials, etc. is mandatory.
- 13 All requisite certificate shall be enclose along with contractor's bill.
- 14 No deviation from approved sample is permissible without prior approval of client.
- 15 Client is fully responsible for quality of material brought by contractor at site of work.
- 16 Work should be carried out as per the standard specification for elctrical works.

SCHEDULE – “B”

Name of Work:- Providing Electrical Installation to Competative Forum at Dr. PDKV., Akola						
Schedule "B"				TS/NO/UE/09/2023-24		
Sr.No.	Qua.More or less.	Item of work	Rates in (Rs.)		Unit	Amount (Rs)
			In Figure	In words		
1	20	Supplying and erecting 20mm dia. corrugated flexible polypropylene conduit	16	sixteen	Mtr	320.00
2	45	Supplying and erecting HMS PVC conduit FRLS grade 25 mm dia. With PVC accessories on wall /ceiling as per specification No: WG-MA/CON.	96	ninety-six	Mtr	4320.00
3	30	Supplying and erecting PVC trunking (PVC casing-n-capping) of size 25 mm with accessories on wall/ceiling as per specification No: WG-MA/CON.	44	forty-four	Mtr	1320.00
4	60	Supplying and erecting mains with 1x1.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW	20	twenty	Mtr	1200.00
5	60	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit /trunking /inside pole /Bus bars or any other places as per specification No: WG-MA/BW	62	sixty-two	Mtr	3720.00
6	25	Supplying & erecting mains with 2x4 sq.mm F.R copper PVC insulated wire laid in provided conduit /trunking /inside pole /Bus bars or any other places. as per specification No: WG-MA/ BW	89	eighty-nine	Mtr	2225.00
7	10	Supplying and erecting modular type witch 6A / 10A duly erected on provided plate and box with wiring connections complete.	72	seventy-two	Each	720.00
8	10	Supplying and erecting ISI mark modular type switch16A duly erected on provided plate and box with wiring connections complete.	106	one hundred six	Each	1060.00

9	10	Supplying and erecting modular type 3 pin 6 / 16A multi socket with safety shutter, duly erected on provided plate and box with wiring connections comp.	160	one hundred sixty	Each	1600.00
10	10	Supplying and erecting PVC Surface modular switch box with double mounting plate for 3 module duly erected.	148	one hundred forty-eight	Each	1480.00
11	3	Supplying and erecting PVC Surface modular switch box with double mounting plate for 12 module.	343	three hundred forty-three	Each	1029.00
12	16	Point wiring for light/bell/exhaust fan in PVC trunking (casing-capping) with 1.5 sq.mm (2+1E) FRLSH grade copper wire, modular type switch, earthing and required accessories as per specification No: WG-PW/SW	552	five hundred fifty-two	Point	8832.00
13	8	Supplying and erecting integrated LED flood light fitting Max. 70W IP65 & IK07 class having pressure die-cast aluminium housing, having system lumens output of Min. 8400 Lumens, min. efficacy of 120 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.90, operating range of 140-270V, inbuilt surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50, including driver with U shaped bracket with 3 Years warranty as per specification No FG-ODF/FLS2.	5846	five thousand eight hundred forty-six	Each	46768.00
14	4	Supplying & erecting ready to use Retrofit T8 LED 18 / 20 tube light with poly carbonate body, heat sink, integrated HF electronic driver complete & compatible to T8 / T12 LED luminaire by disconnecting starter & ballast if necessary.	627	six hundred twenty-seven	Each	2508.00
15	2	Supplying and erecting switch disconnecter fuse (SDF) switch 415V, 25/32A, open execution, triple pole and neutral link AC23 A rated with terminal shrouds on both sides and phase barriers along with telescopic shaft for depth adjustments and door interlock and padlock complying to IS/IEC 60947-3 Part- 1/3 HRC - DIN type fuse, insulation voltage 1000 V for enclosing in panel with rotary handle for ON / OFF operation (without HRC fuse).	1843	one thousand eight hundred forty-three	Each	3686.00

16	1	Supplying and erecting switch disconnecter fuse (SDF) switch 415V up to 63A, open execution, four pole AC23 A rated with terminal shrouds on both sides and phase barriers along with telescopic shaft for depth adjustments and door interlock and padlock complying to IS/IEC 60947-3 Part-1/3 HRC - DIN type fuse, insulation voltage 1000 V for enclosing in panel with rotary handle for ON / OFF operation (without HRC fuse)	2757	two thousand seven hundred fifty-seven	Each	2757.00
17	5	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	173	one hundred seventy-three	Each	865.00
18	3	Supplying, erecting & marking SPMCB 40A to 63A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	369	three hundred sixty-nine	Each	1107.00
19	6	Supplying, erecting & marking SPMCB 40A to 63A, C-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB	369	three hundred sixty-nine	Each	2214.00
20	1	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc. in provided distribution board.	310	three hundred ten	Each	310.00
21	1	Supplying and erecting single pole and neutral distribution board (SPNDB), with 2 ways for incoming and 6 ways (6 poles) for outgoing SP MCBs, with door, 1.2mm thickness surface / flush mounted, IP 43 Protection on iron / GI frame as per specification no. SW-SWR/MCBDB	1244	one thousand two hundred forty-four	Each	1244.00
22	9	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB /RCCB /RCBO complete erected on angle iron/GI frame.	400	four hundred	Each	3600.00

23	4	Supplying, erecting & commissioning 2 pole RCCB 40A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete as per specification no. SW-RCCB/RCCB	2207	two thousand two hundred seven	Each	8828.00
24	1	Supplying, erecting & commissioning 4 pole RCCB 63A, electromagnetic type with 30/100/300 mA sensitivity with earth leakage trip indication complete as per specification no. SW-RCCB/RCCB	2924	two thousand nine hundred twenty-four	Each	2924.00
25	1	Supplying & erecting 415V, 63A porcelain base neutral link complete erected in provided M.S. box.	129	one hundred twenty-nine	Each	129.00
26	3	Supplying & erecting fuse bridges with base HC type fuse links 415V 100A erected on polished wooden block complete.	598	five hundred ninety-eight	Each	1794.00
27	1	Supplying & erecting 415V, 100A porcelain base neutral link complete erected in provided M.S. box.	207	two hundred seven	Each	207.00
28	10	Supplying and erecting metal work in CRCA sheet including Iron work for supports with fabrication of boxes, panel boards, etc. including cutting, bending, drilling, welding, riveting, treated with anti-rust treatment and duly powder coated or painted with one coat of red lead paint and 2 coats of enamel paint complete.	249	two hundred forty-nine	kg	2490.00
29	4	Supplying and erecting plywood 12 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners supports, nuts bolts etc. complete.	795	seven hundred ninety-five	sq m	3180.00

30	10	Supplying and erecting iron work, sheet metal work consisting of CRCA sheets, various sections of iron, plates, chequered plates, rods, bars, MS pipes, etc. for panel board or any other purpose with bending, cutting, drilling and welding complete erected at the position with necessary materials duly painted with one coat of red oxide and two coats of enamel paint to match the switchgears or as per directions by the authority.	186	one hundred eighty-six	kg	1860.00
31	100	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V 2 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/ pole or laid in provided trench / pipe as per specification no. CB-LT/AL	127	one hundred twenty-seven	Mtr	12700.00
32	70	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 4 core 16 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL	211	two hundred eleven	Mtr	14770.00
33	1	Supplying & erecting FRP box of size 250mm x 200mm x 100 mm, 2.7 mm thick complete on pole/wall as per specification No. CB-SB	588	five hundred eighty-eight	Each	588.00
34	11	Supplying and erecting rolled steel joist (girder) pole 125 x 70 mm (13.3 kg/m) with base plate in provided foundation as per specification no. OH-PL/RSJ	1056	one thousand fifty-six	Mtr	11616.00
35	60	Supplying and erecting 3 phase 4 core 25 sq.mm. (3x25+1x25) Aerial bunched aluminium cable along with necessary accessories for LT distribution on provided LT pole as per specification no. OH-CBL/ABC	155	one hundred fifty-five	Mtr	9300.00

36	1	Supplying and erecting G.I. stay set for poles, including loop insulators at in accessible height with anchor plate 300x300x6mm., straining screws, G.I. stay wire 7/10 SWG, G.I. stay rod 20mmx1.8m length and pole clamps duly erected in provided cement concrete foundation complete.	1528	one thousand five hundred twenty-eight	Each	1528.00
37	1.00	Providng earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per <u>specification no. EA-EP</u>	4714	four thousand seven hundred fourteen	Each	4714.00
38	4.00	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per <u>specification no. EA-EP</u>	1500	one thousand five hundred	Each	6000.00
39	40.00	Supplying and erecting GI wire of high purity of required sizes used for earthing or any other purposes on wall with necessary G. I. Clamps fixed <u>on wall/cable/ conduit with screws complete.</u>	155	one hundred fifty-five	kg	6200.00
40	1.00	Making cement concrete foundation including excavation (60 x 60) cm x deep 1/6 of pole length in 1:3:6 cement concrete 20 x 25 mm stone metal, 45 cm x 45 cm x 45 cm /45 cm dia. x 45 cm. height plinth duly plastered, with necessary curing and finishing complete. (for above 9 m poles)	2177	two thousand one hundred seventy-seven	Each	2177.00
41	1.00	Making cement concrete foundation including excavation (60 x 60 x 150) cm deep in 1:3:6 cement concrete, (20 to 25) mm stone metal with <u>necessary curing and finishing complete.(for stay).</u>	1509	one thousand five hundred nine	Each	1509.00
Rupees One Lakh Eighty Five Thousand Three Hundred & Ninety Nine Only						185399.00

Sd/-
Deputy Engineer
Electrical Sub Div
Dr. P.D.K.V. Akola

Sd/-
University Engineer
Dr. P.D.K.V. Akola