GOVERNMENT OF MAHARASHTRA
PUBLIC WORKS DEPARTMENT
PUBLIC WORKS REGION, NAGPUR
PUBLIC WORKS CIRCLE, NAGPUR

Public Works Division No.II, Nagpur

E-TENDER PAPERS

ST BT to District Border to Ismailpur Vadvihira Mendhala Wadhona Ramathi Armahi Kharala Loharisawanga to Join SH way 323 Road (MDR 72) Km. 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur

NAME OF AGENCY : ________________________________________

AGREEMENT No. : ________________________________________
GENERAL INFORMATION OF CONTRACT

Original Agreement No. : B-1 / ................................../ 2016-17

Name of Work : ST BT TO DISTRICT BORDER TO ISMAILPUR
                VADVIHIRA MENDHALA WADHONA RAMATHI
                ARMBHI KHARALA LOHARISAWANGA TO JOIN SH
                WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN
                NARKHED TALUKA AND DIST NAGPUR

Name of Contractor : M/s......................................

No. & Date of Work Order : 

Amount put to Tender : Rs. 1,11,71,815/-

Percentage quoted : 

Amount of Contract : 

Date of Commencement : 

Time stipulated for completion of work : 6(Six) Calender Months including monsoon

Date of completion as per Agreement : 

Actual Date of Completion : 

Reference to sanction of tender : 

Extension of time limit : 1
                        2
                        3

Certified that this original Agreement contains : Pages 1 to 120
DETAILS OF WORK

NAME OF WORK: - ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMHBH KKHARALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR

Estimated Cost put to tender :- Rs. 1,11,71,815/-
Earnest Money :- Rs. 1,00,000/-

The EMD of Rs. 1,00,000/- shall be paid via Online mode using NEFT / RTGS or payment gateway mode only.
Total Security Deposit 4% (four percent) Rs. 4,47,000.00 (50% in cash at the time of Agreement and 50% from R.A.bills).

(i) Initial Security Deposit = Rs. 2,23,500.00
(ii) Balance Security Deposit = Rs. 2,23,500.00

Total Security Deposit = Rs. 4,47,000.00

Registration Class of Contractor : Class IV & above
Validity Period : 90 days from the date of opening
Time Limit for completion of work : 6(Six) Months (including monsoon)
Cost of Blank Tender Form : Rs 5,000/-
Sealed online B-1 tenders for the following work are invited by the Executive Engineer, Public Works Division No,II ,Nagpur from the contractors Registered with Government of Maharashtra Public Work Department in appropriate class.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Work</th>
<th>Estimated Cost Rs.</th>
<th>Earnest Money Rs.</th>
<th>Time limit for Completion</th>
<th>Cost of e-tender Form Fee Rs.</th>
<th>Class of Contractor</th>
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<tbody>
<tr>
<td>1</td>
<td>ST BT to District Border to Ismailpur Vadvihira Mendhala Wadhona Ramathi Armbhi Kharala Loharisawanga to Join SH way 323 Road (MDR 72) Km 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur</td>
<td>1,11,71,815</td>
<td>1,00,000</td>
<td>6(Six) Months (Including Monsoon)</td>
<td>5,000/- (Non-Refundable)</td>
<td>Class IV &amp; above</td>
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**E- TENDER SCHEDULE**

1. **Download Period of online Tender**
   Refer Online schedule on portal [https://pwd.maharashtra.etenders.in](https://pwd.maharashtra.etenders.in)

2. **Date of Pre-bid Meeting & venue**
   Dt.25.05.2016 at 15.00 hrs. in the office of Superintending Engineer, P.W. Circle, Nagpur

3. **Last date and time for online bid preparation and hash Submission (Technical and Financial)**
   Refer Online schedule on portal [https://pwd.maharashtra.etenders.in](https://pwd.maharashtra.etenders.in)

4. **Date and time for online bid data Decryption and Re-encryption. (Technical and Financial)**
   Refer Online schedule on portal [https://pwd.maharashtra.etenders.in](https://pwd.maharashtra.etenders.in)

5. **Place, Date and timing of opening Technical & Financial bid.**
   Refer Online schedule on portal [https://pwd.maharashtra.etenders.in](https://pwd.maharashtra.etenders.in)
GOVERNMENT OF MAHARSHTRA
PUBLIC WORKS DEPARTMENT
DETAILED TENDER NOTICE TO CONTRACTOR

Name of Work : - ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMBHI KARALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR.

Online percentage rate tenders in 'B-1' Form are invited by the Executive Engineer, Public Works Division No.II, Nagpur for the following work from Contractors registered in appropriate class of the Public Works Department of Maharashtra State. The details of work are as under.

<table>
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<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Estimated Cost (Rupees)</th>
<th>Earnest Money (Rupees)</th>
<th>Security Deposit (Rupees)</th>
<th>Class of Contractor</th>
<th>Time limit in Tender (Calendar months)</th>
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<tr>
<td>1</td>
<td>ST BT to District Border to Ismailpur Vadihira Mendhala Wadhona Ramath Armbhi Karala Loharisawang to Join SH way 323 Road (MDR 72) Km 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur</td>
<td>1,11,71,815</td>
<td>1,00,000</td>
<td>Total security Rs. 4,47,000</td>
<td>IV &amp; above</td>
<td>6(Six) Calendar Months including monsoon</td>
</tr>
</tbody>
</table>

1) The pre tender conference will be held in the office of Superintending Engineer, P.W. Circle, Nagpur on Dt.25.05.2016 at 15.00 hrs.
2) Tender form, conditions of contract, specifications and contract drawings can be downloaded from the tendering portal of Public Works Department, Government of Maharashtra i.e. https://pwd.maharashtra.etenders.in. Further information regarding the work can be obtained from the above office.
3) The fees of tender document amounting Rs. 5000 (Rs. Five Thousand) through payment gateway. The fees of tender document will be non refundable.
4) The offer of the Contractor shall remain valid for acceptance for a minimum period of 90 days from the date fixed for opening of Envelope No. 2 (quoted offer) and thereafter until it is withdrawn by the Contractor by notice in writing duly addressed to the authority opening the tender and sent by Registered Post Acknowledgement Due.
5) The tender notice shall form a part of the contract agreement.
6) If the tenderer is a firm or company then they shall in their forwarding letter mention the names of all the partners of the firm or the company (as the case may be) and the name of the partner who holds the power of attorney if any, authorizing him to conduct transaction on behalf of the Firm or Company.
7) Right is reserved to revise or amend the contract documents fully or part thereof prior to the date notified for the receipt of tender. Such deviations/ amendments if any, shall be communicated in the form of corrigendum or by a letter as may be considered suitable. The above revision will not vitiate the tendering process.
8) The offer is to be submitted online. The tenderer shall enter his percentage rates in words and figures "below / above". In case there is difference between percentage written in figures and words, the lower offer will be taken as final.
9) Lowest tenderer should submit sumoto their Original copy of Self declaration, Additional performance security deposit FDR/TDR in the office of Executive Engineer, Public Works Division No.II, Nagpur with covering letter within 10 days after date of bid opening.
10) Right is reserved to reject any or all tenders without assigning any reason thereof.
11) Tenders which do not fulfill all or any conditions or are incomplete in any respect are liable to summarily rejection.

Contractor No. of Corrections Executive Engineer
12) In the tender process, if the lowest offer is more than 10% below the cost put to tender, the tender calling authority shall obtain the detailed justification and planning of executing the work at such lower rate from the concerned contractor and based on that shall ensure the possibility of completing the work at the offered lowest rate.

13) The offer in envelope 2 without demand Draft of appropriate amount of performance security shall be treated as invalid offer.

1 Pre-requisites to participate in the Tenders processed by PWD:

1.1 Enrolment and Empanelment of Contractors on Electronic Tendering System:

The Contractors interested in participating in the Tenders of Public Works Department - processed using the Electronic Tendering System shall be required to enroll on the Electronic Tendering System to obtain User ID.

After submission of application for enrolment on the System, the application information shall be verified by the Authorized Representative of the Service Provider. If the information is found to be complete, the enrolment submitted by the Vendor shall be approved.

For participating in Limited and Restricted tenders the registered vendors have to apply for empanelment on the sub-portal of PWD in an appropriate class of registration. The empanelment will have to be approved by the respective officer from the PWD. Only empanelled vendors will be allowed to participate in such tenders.

The Contractors may obtain the necessary information on the process of enrolment and empanelment either from Helpdesk Support Team or may visit the information published under the link Enroll under the section E-Tendering Toolkit for Bidders on the Home Page of the Electronic Tendering System.

1.2 Obtaining a Digital Certificate:

The Bid Data that is prepared online is required to be encrypted and the hash value of the Bid Data is required to be signed electronically using a Digital Certificate (Class-II or Class-III). This is required to maintain the security of the Bid Data and also to establish the identity of the Contractor transacting on the System.

The Digital Certificates are issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities of Government of India through their Authorized Representatives upon receipt of documents required to obtain a Digital Certificate.

Bid data / information for a particular Tender may be submitted only using the Digital Certificate which is used to encrypt the data / information and sign the hash value during the Bid Preparation and Hash Submission stage. In case during the process of preparing and submitting a Bid for a particular Tender, the Contractor loses his / her Digital Signature Certificate (i.e. due to virus attack, hardware problem, operating system problem); he / she may not be able to submit the Bid online. Hence, the Users are advised to store his / her Digital Certificate securely and if possible, keep a backup at safe place under adequate security to be used in case of need.

In case of online tendering, if the Digital Certificate issued to an Authorized User of a Partnership Firm is used for signing and submitting a bid, it will be considered equivalent to a no objection certificate / power of attorney to that User to submit the bid on behalf of the Partnership Firm. The Partnership Firm has to authorize a specific individual via an authorization certificate signed by a partner of the firm (and in case the applicant is a partner, another partner in the same form is required to authorize) to use the digital certificate as per Indian Information Technology Act, 2000.
Unless the Digital Certificate is revoked, it will be assumed to represent adequate authority of the Authority User to bid on behalf of the Firm for the Tenders processed on the Electronic Tender Management System of Government of Maharashtra as per Indian Information Technology Act, 2000. The Digital Signature of this Authorized User will be binding on the Firm. It shall be the responsibility of Partners of the Firm to inform the Certifying Authority or Sub Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Signature Certificate. The procedure for application of a Digital Signature Certificate will remain the same for the new Authorised User.

The same procedure holds true for the Authorized Users in a Private / Public Limited Company. In this case, the Authorisation Certificate will have to be signed by the Director of the Company or the Reporting Authority of the Applicant.

For information on the process of application for obtaining Digital Certificate, the Contractors may visit the section Digital Certificate on the Home Page of the Electronic Tendering System.

1.3. **Recommended Hardware and Internet Connectivity:**

To operate on the Electronic Tendering System, the Contractors are recommended to use Computer System with at least 1 GB of RAM and broadband connectivity with minimum 512 kbps bandwidth.

1.4. **Set up of Computer System for executing the operations on the Electronic Tendering System:**

To operate on the Electronic Tendering System of Government of Maharashtra, the Computer System of the Contractors is required be set up. The Contractors are required to install Utilities available under the section Mandatory Installation Components on the Home Page of the System.

The Utilities are available for download freely from the above mentioned section. The Contractors are requested to refer to the E-Tendering Toolkit for Bidders available online on the Home Page to understand the process of setting up the System, or alternatively, contact the Helpdesk Support Team on information / guidance on the process of setting up the System.

1.5. **Payment for Service Provider Fees:**

In addition to the Tender Document Fees payable to PWD, the Contractors will have to pay Service Providers Fees of **Rs. 1,058/-** through online payments gateway service available on Electronic Tendering System. For the list of options for making online payments, the Contractors are advised to visit the link E-Payment Options under the section E-Tendering Toolkit for Bidders on the Home Page of the Electronic Tendering System.

2 **Steps to be followed by Contractors to participate in the e-Tenders processed by PWD**

2.1. **Preparation of online Briefcase:**

All Contractors enrolled on the Electronic Tendering System of Government of Maharashtra are provided with dedicated briefcase facility to store documents / files in digital format. The Contractors can use the online briefcase to store their scanned copies of frequently used documents / files to be submitted as a part of their bid response. The Contractors are advised to store the relevant documents in the briefcase before starting the Bid Preparation and Hash Submission stage.

In case, the Contractors have multiple documents under the same type (e.g. multiple Work Completion Certificates) as mentioned above, the Contractors advised to either create a single pdf file of all the documents of same type or compress the documents in a single compressed file in .zip or .rar formats and upload the same.

It is mandatory to upload the documents using the briefcase facility. Therefore, the Contractors are advised to keep the documents ready in the briefcase to ensure timely bid preparation.
Note: Uploading of documents in the briefcase does not mean that the documents are available to PWD at the time of Tender Opening stage unless the documents are specifically attached to the bid during the online Bid Preparation and Hash Submission stage as well as during Decryption and Re-encryption stage.

2.2. **Online viewing of Detailed Notice Inviting Tenders:**
The Contractors can view the Detailed Tender Notice along with the Time Schedule (Key Dates) for all the Live Tenders released by PWD on the home page of PWD e-Tendering Portal on http://pwd.maharashtra.etenders.in under the section Recent Online Tender.

2.3. **Download of Tender Documents:**
The Pre-qualification / Main Bidding Documents are available for free downloading. However to participate in the online tender, the bidder must purchase the bidding documents via online mode by filling the cost of Tender Form Fee

2.4. **Online Bid Preparation and Submission of Bid Hash (Seal) of Bids:**
Bid preparation will start with the stage of EMD Payment which bidder has to pay online using any one online pay mode as RTGS , NEFT or payment gateway.

For EMD payment, if bidder use NEFT or RTGS then system will generate a challan (in two copies), with unique challan No specific to the tender. Bidder will use this challan in his bank to make NEFT/RTGS Payment via net banking facility provided by bidder’s bank.

Bidder will have to validate the EMD payment as a last stage of bid preparation. If the payment is not realised with bank, in that case system will not be able to validate the payment and will not allow the bidder to complete his Bid Preparation stage resulting in nonparticipation in the aforesaid eTender.

Note:
* Realisation of NEFT/RTGS payment normally takes 2 to 24 hours, so it is advised to make sure that NEFT/RTGS payment activity should be completed well before time.
* NEFT/RTGS option will be depend on the amount of EMD.
* Help File regarding use of ePayment Gateway can be downloaded from eTendering portal

Submission of Bids will be preceded by online bid preparation and submission of the digitally signed Bid Hashes (Seals) within the Tender Time Schedule (Key Dates) published in the Detailed Notice Inviting Tender. The Bid Data is to be prepared in the templates provided by the Tendering Authority of PWD. The templates may be either form based, extensible tables and / or uploadable documents. In the form based type of templates and extensible table type of templates, the Contractors are required to enter the data and encrypt the data using the Digital Certificate.

In the uploadable document type of templates, the Contractors are required to select the relevant document / compressed file (containing multiple documents) already uploaded in the briefcase.

Notes:
The Contractors upload a single document or a compressed file containing multiple documents against each unloaddable option.

The Hashes are the thumbprint of electronic data and are based on one - way algorithm. The Hashes establish the unique identity of Bid Data.

The bid hash values are digitally signed using valid Class - II or Class - III Digital Certificate issued any Certifying Authority. The Contractors are required to obtain Digital Certificate in advance.
After the hash value of bid data is generated, the Contractors cannot make any change / addition in its bid data. The bidder may modify bids before the deadline for Bid Preparation and Hash Submission as per Time Schedule mentioned in the Tender documents. This stage will be applicable during both, Pre-bid / Pre-qualification and Financial Bidding Processes.

2.5. **Close for Bidding (Generation of Super Hash Values):**

After the expiry of the cut – off time of Bid Preparation and Hash Submission stage to be completed by the Contractors has lapsed, the Tender will be closed by the Tender Authority.

The Tender Authority from PWD shall generate and digitally sign the Super Hash values (Seals).

2.6. **Decryption and Re-encryption of Bids (submitting the Bids online):**

After the time for generation of Super Hash values by the Tender Authority from PWD has lapsed, the Contractors have to make the online payment of Rs. 1,056/- towards the fees of the Service Provider.

After making online payment towards Fees of Service Provider, the Contractors are required to decrypt their bid data using their Digital Certificate and immediately re-encrypt their bid data using the Public Key of the Tendering Authority. The Public Key of the Tendering Authority is attached to the Tender during the Close for Bidding stage.

Note: The details of the Processing Fees shall be verified and matched during the Technical Opening stage.

At this time, the Contractors are also required to upload the files for which they generated the Hash values during the Bid Preparation and Hash Submission stage.

The Bid Data and Documents of only those Contractors who have submitted their Bid Hashes (Seals) within the stipulated time (as per the Tender Time Schedule), will be available for decryption and re-encryption and to upload the relevant documents from Briefcase. A Contractor who has not submitted his Bid Preparation and Hash Submission stage within the stipulated time will not be allowed to decrypt / re-encrypt the Bid data / submit documents during the stage of Decryption and Re-encryption of Bids (submitting the Bids online).

2.7. **Shortlisting of Contractors for Financial Bidding Process:**

The Tendering Authority will first open the Technical Bid documents of all Contractors and after scrutinizing these documents will shortlist the Contractors who are eligible for Financial Bidding Process. The shortlisted Contractors will be intimated by email.

2.8. **Opening of the Financial Bids:**

The Contractors may remain present in the Office of the Tender Opening Authority at the time of opening of Financial Bids. However, the results of the Financial Bids of all Contractors shall be available on the PWD e-Tendering Portal immediately after the completion of opening process.

2.9. **Tender Schedule (Key Dates):**

The Contractors are strictly advised to follow the Dates and Times allocated to each stage under the column “Contractor Stage” as indicated in the Time Schedule in the Detailed Tender Notice for the Tender. All the online activities are time tracked and the Electronic Tendering System enforces time-locks that ensure that no activity or transaction can take place outside the Start and End Dates and Time of the stage as defined in the Tender Schedule.

At the sole discretion of the Tender Authority, the time schedule of the Tender stages may be extended.
3 Terms and Conditions For Online-Payments

3.1 The Terms and Conditions contained herein shall apply to any person (“User”) using the services of PWD Maharashtra, hereinafter referred to as “Merchant”, for making Tender fee and Earnest Money Deposit (EMD) payments through an online Payment Gateway Service (“Service”) offered by ICICI Bank Ltd. in association with E Tendering Service provider and Payment Gateway Service provider through PWD Maharashtra website i.e. http://pwd.maharashtra.etenders.in. Each User is therefore deemed to have read and accepted these Terms and Conditions.

Privacy Policy

The Merchant respects and protects the privacy of the individuals that access the information and use the services provided through them. Individually identifiable information about the User is not willfully disclosed to any third party without first receiving the User's permission, as covered in this Privacy Policy.

This Privacy Policy describes Merchant’s treatment of personally identifiable information that Merchant collects when the User is on the Merchant’s website. The Merchant does not collect any unique information about the User (such as User's name, email address, age, gender etc.) except when you specifically and knowingly provide such information on the Website. Like any business interested in offering the highest quality of service to clients, Merchant may, from time to time, send email to the User and other communication to tell the User about the various services, features, functionality and content offered by Merchant's website or seek voluntary information from The User.

Please be aware, however, that Merchant will release specific personal information about the User if required to do so in the following circumstances:

in order to comply with any valid legal process such as a search warrant, statute, or court order, or available at time of opening the tender

if any of User’s actions on our website violate the Terms of Service or any of our guidelines for specific services, or

to protect or defend Merchant’s legal rights or property, the Merchant’s site, or the Users of the site or;
to investigate, prevent, or take action regarding illegal activities, suspected fraud, situations involving potential threats to the security, integrity of Merchant’s website/offerings.

General Terms and Conditions For E-Payment

Once a User has accepted these Terms and Conditions, he/ she may register on Merchant’s website and avail the Services.

Merchant's rights, obligations, undertakings shall be subject to the laws in force in India, as well as any directives/ procedures of Government of India, and nothing contained in these Terms and Conditions shall be in derogation of Merchant's right to comply with any law enforcement agencies request or requirements relating to any User’s use of the website or information provided to or gathered by Merchant with respect to such use. Each User accepts and agrees that the provision of details of his/her use of the Website to regulators or police or to any other third party in order to resolve disputes or complaints which relate to the Website shall be at the absolute discretion of Merchant.

If any part of these Terms and Conditions are determined to be invalid or unenforceable pursuant to applicable law including, but not limited to, the warranty disclaimers and liability limitations set forth herein, then the invalid or unenforceable provision will be deemed superseded by a valid, enforceable provision that most closely matches the intent of the original provision and the remainder of these Terms and Conditions shall continue in effect.
These Terms and Conditions constitute the entire agreement between the User and Merchant. These Terms and Conditions supersede all prior or contemporaneous communications and proposals, whether electronic, oral, or written, between the User and Merchant. A printed version of these Terms and Conditions and of any notice given in electronic form shall be admissible in judicial or administrative proceedings based upon or relating to these Terms and Conditions to the same extent and subject to the same conditions as other business documents and records originally generated and maintained in printed form.

The entries in the books of Merchant and/or the Payment Gateway Service Providers kept in the ordinary course of business of Merchant and/or the Payment Gateway Service Providers with regard to transactions covered under these Terms and Conditions and matters therein - this Service available to the User as a matter of convenience. Merchant expressly disclaims any claim or liability arising out of the provision of this Service. The User agrees and acknowledges that he/ she shall be solely responsible for his/ her conduct and that Merchant reserves the right to terminate the rights to use of the Service immediately without giving any prior notice thereof.

Merchant and/or the Payment Gateway Service Providers shall not be liable for any inaccuracy, error or delay in, or omission of (a) any data, information or message, or (b) the transmission or delivery of any such data, information or message; or (c) any loss or damage arising from or occasioned by any such inaccuracy, error, delay or omission, non-performance or interruption in any such data, information or message. Under no circumstances shall the Merchant and/or the Payment Gateway Service Providers, its employees, directors, and its third party agents involved in processing, delivering or managing the Services, be liable for any direct, indirect, incidental, special or consequential damages, or any damages whatsoever, including punitive or exemplary arising out of or in any way connected with the provision of or any inadequacy or deficiency in the provision of the Services or resulting from unauthorized access or alteration of transmissions of data or arising from suspension or termination of the Services.

The Merchant and the Payment Gateway Service Provider(s) assume no liability whatsoever for any monetary or other damage suffered by the User on account of:

(I) the delay, failure, interruption, or corruption of any data or other information transmitted in connection with use of the Payment Gateway or Services in connection thereto; and/ or
(ii) any interruption or errors in the operation of the Payment Gateway.

The User shall indemnify and hold harmless the Payment Gateway Service Provider(s) and Merchant and their respective officers, directors, agents, and employees, from any claim or demand, or actions arising out of or in connection with the utilization of the Services.

The User agrees that Merchant or any of its employees will not be held liable by the User for any loss or damages arising from your use of, or reliance upon the information contained on the Website, or any failure to comply with these Terms and Conditions where such failure is due to circumstance beyond Merchant’s reasonable control.

3.2  Miscellaneous Conditions :

Any waiver of any rights available to Merchant under these Terms and Conditions shall not mean that those rights are automatically waived.

The User agrees, understands and confirms that his/ her personal data including without limitation details relating to debit card/ credit card transmitted over the Internet may be susceptible to misuse, hacking, theft and/ or fraud and that Merchant or the Payment Gateway Service Provider(s) have no control over such matters.
Although all reasonable care has been taken towards guarding against unauthorized use of any information transmitted by the User, Merchant does not represent or guarantee that the use of the Services provided by/ through it will not result in theft and/or unauthorized use of data over the Internet. The Merchant, the Payment Gateway Service Provider(s) and its affiliates and associates shall not be liable, at any time, for any failure of performance, error, omission, interruption, deletion, defect, delay in operation or transmission, computer virus, communications line failure, theft or destruction or unauthorized access to, alteration of, or use of information contained on the Website.

The User may be required to create his/ her own User ID and Password in order to register and/ or use the Services provided by Merchant on the Website. By accepting these Terms and Conditions the User agrees that his/ her User ID and Password are very important pieces of information and it shall be the User’s own responsibility to keep them secure and confidential. In furtherance hereof, the User agrees to;

Choose a new password, whenever required for security reasons.

(a) Keep his/ her User ID & Password strictly confidential.
(b) Be responsible for any transactions made by User under such User ID and Password.
(c) The User is hereby informed that Merchant will never ask the User for the User’s password in an unsolicited phone call or in an unsolicited email. The User is hereby required to sign out of his/ her Merchant account on the Website and close the web browser window when the transaction(s) have been completed. This is to ensure that others cannot access the User’s personal information and correspondence when the User happens to share a computer with someone else or is using a computer in a public place like a library or Internet café.

Debit/Credit Card, Bank Account Details

The User agrees that the debit/credit card details provided by him/ her for use of the aforesaid Service(s) must be correct and accurate and that the User shall not use a debit/ credit card, that is not lawfully owned by him/ her or the use of which is not authorized by the lawful owner thereof. The User further agrees and undertakes to provide correct and valid debit/credit card details.

The User may make his/ her payment(Tender Fee/Earnest Money deposit) to Merchant by using a debit/credit card or through online banking account. The User warrants, agrees and confirms that when he/ she initiates a payment transaction and/or issues an online payment instruction and provides his/ her card / bank details:

The User is fully and lawfully entitled to use such credit / debit card, bank account for such transactions;

The User is responsible to ensure that the card/ bank account details provided by him/ her are accurate;

The User is authorizing debit of the nominated card/ bank account for the payment of Tender Fee and Earnest Money Deposit.

The User is responsible to ensure sufficient credit is available on the nominated card/ bank account at the time of making the payment to permit the payment of the dues payable or the bill(s) selected by the User inclusive of the applicable Fee.

Personal Information

The User agrees that, to the extent required or permitted by law, Merchant and/ or the Payment Gateway Service Provider(s) may also collect, use and disclose personal information in connection

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<th>Contractor</th>
<th>No. of Corrections</th>
<th>Executive Engineer</th>
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with security related or law enforcement investigations or in the course of cooperating with authorities or complying with legal requirements.

The User agrees that any communication sent by the User vide e-mail, shall imply release of information therein/ therewith to Merchant. The User agrees to be contacted via e-mail on such mails initiated by him/ her.

In addition to the information already in the possession of Merchant and/ or the Payment Gateway Service Provider(s), Merchant may have collected similar information from the User in the past. By entering the Website the User consents to the terms of Merchant's information privacy policy and to our continued use of previously collected information. By submitting the User’s personal information to us, the User will be treated as having given his/her permission for the processing of the User’s personal data as set out herein.

The User acknowledges and agrees that his/ her information will be managed in accordance with the laws for the time in force.

3.3 Payment Gateway Disclaimer

The Service is provided in order to facilitate payment of Tender Fees/Earnest Money Deposit online. The Merchant or the Payment Gateway Service Provider(s) do not make any representation of any kind, express or implied, as to the operation of the Payment Gateway other than what is specified in the Website for this purpose. By accepting/ agreeing to these Terms and Conditions, the User expressly agrees that his/ her use of the aforesaid online payment service is entirely at own risk and responsibility of the User.

4 TENDERING PROCEDURE :

Issue of Blank Tender Forms.

Tender Forms can be purchased from the e-Tendering Portal of Public Works Department, Government of Maharashtra i.e. https://pwd.maharashtra.etenders.in after paying Tender Fees via online mode as per the Tender Schedule.

4.1 EARNEST MONEY :-

i) Earnest money of minimum Rs. 1,00,000/- shall be paid online using NEFT / RTG or payment gateway mode. Earnest Money in the form of cheques or any other form except above will not be accepted.

ii) Tenderer of those who do not deposit earnest money in one of the above acceptable form shall be summarily rejected.

iii) The amount of earnest money will be refunded to the unsuccessful tenderers on deciding about the acceptance or otherwise of the tender or on lapsing of the validity period, whichever is earlier. In case of successful tenderer, it will be refunded on his payment of initial Security Deposit will be adjusted towards a part of security deposit to be paid after awarding of the work. If successful tenderer does not pay the Security Deposit in the perscribed time limit, and complete the agreement bond, his earnest money deposit will be forfeited to the Government.

iv) In case of Joint Venture, Earnest money shall be paid via online using NEFT/RTGS or payment gateway mode. The Security Deposit / additional security deposit etc. in the form of T.D.R./F.D.R. issued in the name of Joint Venture Company drawn by scheduled bank having
branches in Maharashtra and pledged, in the name of Executive Engineer, Public Works Division No,II Nagpur for the period of one year will be considered.

4.2 **PRE-TENDER CONFERENCE:** -

4.2.1 Pre-tender conference is open to all prospective tenderer who have downloaded tender form before the date of Pre-tender Conference. The Pre-tender conference will be held on **Dt.25.05.2016 at 15.00 Hrs.** in the office of the **Supererintending Engineer, Public Works Circle, Civil Lines, Nagpur 440001,** wherein prospective Tenderers will have an opportunity to obtain clarifications regarding the work and the Tender Conditions.

4.2.2 The prospective contractor shall post their queries either in writing or orally concerning the work, and the reply to the same shall be uploaded on the portal [http://pwd.maharashtra.etenders.in](http://pwd.maharashtra.etenders.in) and this clarification referred to as Common Set of Conditions/Deviations (C.S.D.), shall form part of tender documents and which will also be common and applicable to all tenderer. The point / points if any raised in writing and/or verbally/ online by the contractor in pretender conference and not finding place in C.S.D. issued after the pre- bid conference, is/are deem to be rejected. In such case the provision in NIT shall prevail. No further correspondence will be made thereafter with the contractor in this regard.

4.2.3 The tender submitted by the tenderer shall be based on the C.S.D. issued by dept if any.

4.2.4 All tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditional tenders will be treated as non responsive.

4.2.5 Tenderers should have valid Class II / III Digital Signature Certificate (DSC) obtained from any Certifying Authorities. In case of requirement of DSC, interested Bidders should go to [http://maharashtra.etenders.in/mah/DigitalICertLasp](http://maharashtra.etenders.in/mah/DigitalICertLasp) and follow the procedure mentioned in the document 'Procedure for application of Digital Certificate'.

4.2.6 The Tenderers have to make a payment of **Rs 1,058/- online** as service charges for the use of Electronic Tendering during Online Bid Data Decryption and Re- encryption stage of the Tender.

4.2.7 For any assistance on the use of Electronic Tendering System, the Users may call the below numbers:

- Landline No. - 020 - 2531 5555 / 56
- Landline No. - 022 - 2661 1117 (Ext 25 / 26)
- Mobile No. - 91679 69601 / 04 / 14

4.2.8 Tenderers should install the Mandatory Components available on the Home Page of [http://maharashtra.etenders.in](http://maharashtra.etenders.in) under the section 'Mandatory Components' and make the necessary Browser Settings provided under section 'Internet Explorer Settings'
4.2.9 Guidelines to Bidders on the operations of Electronic Tendering System of Public Works Department. https://pwd.maharashtra.etenders.in

5 SUBMISSION OF TENDER:-
Refer to Section 'Guidelines to Bidders on the operations of Electronic Tendering System of Public Works Department'

6 OPENING OF TENDER :-
On the date specified in the Tender Schedule following procedure will be adopted.

6.1 ENVELOPE No.1 :- (Documents)
First of all Envelope No.1 of the tender will be opened online to verify its contents 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 tenderers Envelope No. 2 will not be considered for further action and the same will be recorded. The decision of the tender opening authority in this regard will be final and binding on the contractors.

6.2 ENVELOPE No.2: (Financial Bid)
This envelope shall be opened online immediately after opening of Envelope No.1, only if contents of Envelope No.1 are found to be acceptable to the Department. The tendered rates in Schedule ‘B’ or percentage above / below the estimated rates shall then be read out in the presence of bidders who remain present at the time of opening of Envelope No.2.

Offer to be submitted online. The tenderer shall enter his percentage rates in words and figures "below / above". In case there is a difference between percentage written in figures and words, the lower offer will be taken as final.

The contractor shall quote their offer as per details given in the main tender and also based on the detailed set of conditions issued / Additional stipulations made by the Department as informed to him by a letter from Chief Engineer / Superintending Engineer after Pre-Tender Conference. Tenderer quote their offer only unconditional.

7 SECURITY DEPOSIT :

The successful tenderer shall have to pay half the security deposit in approved security form (preferably in the form of National Saving Certificate) or in cash or in the form of Bank Guarantee (in the form as prescribed by Government) from any Schedule Bank or Nationalized Bank and balance Security Deposit will be recoverable through the bills at the percentage as shown in item (s) of the Memorandum in printed B-1 form or as may be decided by the Executive Engineer during course of execution of the work looking to the position and circumstances that may prevail, whose orders will be final and binding on the contractor.

The security deposit for the due performance of the contract shall be as detailed in the Tender Documents elsewhere. Fifty percent of the security deposit will have to be deposited within ten days (including Government holidays) of the acceptance of the tender and the remaining fifty percent will be recovered from the Running Bills at the rate as specified in the tender form, on the cost of work as per C.S.R. prevailing at the time of acceptance of tender. Amount of total security deposit to be paid shall be 4% of the cost of work. Initial Security Deposit may be in Bank Guarantee form as per prescribed
format of tender document for full period of completion of work and it should be extendable upto expiry of valid extension if any, as directed by Engineer-in-charge.

8 Condition regarding performance Security, (in place of Condition for payment of additional security deposit, if offer quoted by the tenderer is More than 15% below the cost put to tender.)

(i) Following action shall be taken about making available Demand Draft of performance security / returning Demand Draft etc.:

(a) Demand Draft shall be drawn on the name of Executive Engineer, Public Works Division No II Nagpur

(b) Demand Draft shall be drawn from Nationalized or Scheduled banks.

(c) Validity of Demand Draft shall be minimum 3 months from the date of submission of tender.

(d) Scanned copy of Demand Draft shall be uploaded by the contractors at the time of e-tendering.

(e) Contractor shall submit Demand Draft in sealed envelope in the office of the Executive Engineer, Public Works Division No II Nagpur within 5 working days from the date of submission of tender. Name of work and e-tender no. shall be written on the envelope.

(f) It is essential to have Bank’s MICR and IFSC code no. on Demand Draft.

(g) On opening the tender, if papers in Envelope no.1 don’t fulfill the essential qualification requirements, then Executive Engineer shall return the envelope of Demand Draft to concerned contractor within 7 days from the date of opening of tender.

(h) Offer in envelope no.2 shall be opened of those contractors whose documents in envelope no.1 fulfill the essential qualification requirements. Envelope of Demand Draft of these contractors, except 2 lowest tenderers, shall be returned within 7 days. The offer in envelope 2 without demand Draft of appropriate amount of performance security shall be treated as invalid offer.

(i) Demand Draft of second lowest tenderer shall be returned within 3 days after issuing work order to the lowest tenderer.

(j) EMD of the contractors submitting false documents/Demand Draft in above process shall be forfeited and registration of the said contractors shall be cancelled for 1 year. For this, Superintending Engineer shall have full authority.

(k) Executive Engineer shall issue the work order only after encashing the Demand Draft of the lowest tenderer.

(l) Executive Engineer shall return the Performance Security to contractor within 3 months, after satisfactory completion of the work.

9 TIME LIMIT:

The work is to be completed within time limit as specified in the N.I.T. which shall be reckoned from the date of written order for commencing the work and shall be inclusive of monsoon period.

10 TENDER RATE:

No alteration in the form of tender and the schedule of tender and no additions in the scope of special stipulation will be permitted. Rates quoted for the tender shall be taken as applicable for all leads and lifts.

11 TENDER UNITS:

Contractor     No. of Corrections     Executive Engineer
12 CORRECTION:

No corrections shall be made in the tender documents. Any corrections that are to be made shall be made by crossing the incorrect portion and writing the correct portions above with the initials of tenderer.

13 TENDER’S ACCEPTANCE:

Acceptance of tender will rest with the Chief Engineer, P. W. Region, Nagpur who reserves the right to reject any or all tenders without assigning any reason therefore. The tenderer whose tender is accepted will have to enter in to a regular B-1 agreement within 10 days of being notified to do so. In case of failure on the part of Tenderer to sign the agreement within the stipulated time, the earnest money paid by him shall stand forfeited to the Government and the offer of the tenderer shall be considered as withdrawn by him.

14. CONDITIONAL TENDER:

The tenders which do not fulfill the condition of the notification and the general rules and directions for the guidance of contractor in the agreement form or are incomplete in any respect are likely to be rejected without assigning any reason therefore.

The Tenderers shall be presumed to have carefully examined the drawings, conditions and specifications of the work and have fully acquainted themselves with all details of the site, the conditions of rock and its joints, pattern, river, weather characteristics, labour conditions and in general with all the necessary information and data pertaining to the work, prior to tendering for the work. The data whatsoever supplied by the Department along with the tender documents are meant to serve only as guide for the tenderers while tendering and the Department accepts no responsibility whatsoever either for the accuracy of data or for their comprehensiveness. The quarries for extraction of metal, murum etc. provided in the sanctioned estimate are as per survey conducted by the Department. The Contractor should however examine these quarries and see whether full quantity of materials required for execution of the work strictly as per specification are available in these sources before quoting the rates. In case the materials are not available due to reasons whatsoever, the contractor will have to bring the materials from any other sources with no extra cost to Government. The rates quoted, should therefore be for all leads and lifts from wherever the materials are brought at site of work and inclusive of royalty to be paid to the Revenue Department by the Contractor.

15. POWER OF ATTORNEY:

If the tenderer are a firm or company, they should in their forwarding letter mention the names of all the partners together with the name of the person who holds the power of Attorney, authorizing him to conduct all transactions on behalf of the body, along with the Tender as per scanned copy uploaded in Envelope No.1.

16. The tenderer may, in the forwarding letter, mention any points be may wish to make clear but the right is reserved to reject the same or the whole of the tenders if the same become conditional tender thereby.

17. The contractor or the firms tendering for the work shall inform the Department if they appoint their authorized Agent on the work.
18. No foreign exchange will be released by the Department for the purchase of plants and machinery for the work by the Contractor.

19. 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.

20. All scanned pages of tender documents, conditions, specifications, correction slips etc. shall be initialed by the tenderer. The tender should bear full signature of the tenderer, or his authorized power of Attorney holder in case of a firm.

21. The Income Tax at 2.00 % including surcharge or percentage in force from time to time or at the rate as intimated by the competent Income Tax authority shall be deducted from bill amount whether measured bill, advance payment or secured advance.

22. The successful tenderer will be required to produce, to the satisfaction of the specified concerned authority a valid concurrent license issued in his favour under the provisions of the Contract Labour (Regulation and Abolition) Act 1970 for 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.

23. The tenderer shall submit the list of apprentices engaged by the Contractor under Apprentice Act.

24. Cess @ 1% (One percent) shall be deducted at source from every bill of the Contractor by the Executive Engineer under “Building and Other Construction for workers Welfare Cess Act 1996

25. Value Added Tax Deduction 2% from the registered contractors under the MVAT Act, 2005 and 4% from the unregistered contractor under MVAT Act, 2005, shall be recovered from the contractor from the gross bill amount of every bill, whether for measured works or Advance Payment or Secured Advance.

26. The tender rates are inclusive of all taxes, rates, cesses and are also inclusive of the leviable tax in respect if sale by transfer of property in goods involved in the execution of a work contract under the provision of Rules 58 of Maharashtra Value Added Tax Act-2005. For the purpose of levy of tax.

27. RECOVERY OF ROYALTY:
For all quarry materials used for the work the royalty charges on quarry materials will be recovered at prevailing Govt. rate from each bill. Contractors shall produce royalty clearance certificate /royalty passes issued by the Revenue Department within 3 month from the date of payment. Failing which the amount recovered from the bill and will be remitted to the Revenue Department and thereafter no further claim of the contractor will be entertained.

28. VALIDITY PERIOD:
The offer shall remain open for acceptance for minimum period of 90 days from the Date of opening of Envelope No.2 (Financial Bid) and thereafter until it is withdrawn by the contractor by notice in writing duly addressed to the authority opening the tender and sent by Registered Post Acknowledgment due.
29 **Disqualification**

Even through the tenderer meet the above qualification criteria, they are subject to be disqualified if they have,
- Made misleading or false representation in the form / statement, submitted, and / or record of poor performance such as abandoning the works rescinding of contract for which reasons are attributable to the non performance of the contractor, constant history of litigation awarded against the applicant or financial failure due to bankruptcy.
- The rescinding of contract of a joint venture and account of reasons other than non-performance, such as Most Experienced partner of joint venture pulling out, court directions leading breaking up to a joint venture before the start of work, which are not attributable to the poor performance of the contractor will, however not affect the qualification of the individual partners.
- In the tender process, if the lowest offer is more than 10% below the cost put to tender, the tender calling authority shall obtain the detailed justification and planning of executing the work at such lower rate from the concerned contractor and based on that shall ensure the possibility of completing the work at the offered lowest rate.
- The offer in envelope 2 without demand Draft of appropriate amount of performance security shall be treated as invalid offer

30 (A) **ONLINE ENVELOPE No.1: (Documents Required)**

The "Envelope No. 1" shall contain the following documents in the form of scanned copies of original/True copy. Please upload documents in prescribed statement.

i) Valid certificate as a Registered Contractor with the Government of Maharashtra in Public Works Department in appropriate class.

ii) The EMD shall be paid online using NEFT /RTGS/Payment gateway mode Additional Security deposit (if required) then scanned copy of FDR/TDR shall be uploaded online.

iii) List of Plants & machinery readily available with the tenderer for use on this Work and list of machinery proposed to be utilized on this work but not readily available and manner in which it is proposed to be procured (Information to be given in Statement No. II)

iv) Details of Technical Personnel on the rolls of the tenderer. (Information to be given in Statement No. IV)

v) Undertaking for deployment for machinery (Self declaration) in prescribed format. (Information to be given in Form No. I).

vi) Self declaration in respect of genuineness of documents contained in Envelope No. 1 in prescribed Profarma. (Information to be given in Form No. II).

vii) Registered Partnership Deed, Memorandum of Articles of Association, if the tenderer is a Partnership Firm. Power of Attorney and Firm Registration Certificate if any.

viii) Joint venture agreement proving the joint and several liability with respect to the contract.

ix) Copy of valid Plant Verification certificates certified by Assistant Mechanical Chief Engineer P.W Region, Nagpur.
x) Location map of Hot Mix plant showing the distance within 60Km from farthest point of worksite certified by tenderer.

xi) Common set of Deviation (CSD) issued and digitally signed by the department.

xii) Tender copy issued and digitally signed by the department.

30.1 Personnel required for this work.

The bidder shall deploy following key personnel on the contract work available in the list of technical personnel.

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Personal</th>
<th>Minimum Qualification</th>
<th>Minimum Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Full time Technical Staff required on site.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Site Supervision (daily)</td>
<td>Diploma in Civil Engineer Minimum 2 year experience.</td>
<td>01</td>
</tr>
<tr>
<td>2</td>
<td>Plant System supervision (daily)</td>
<td>Diploma/ITI Minimum 2 years.</td>
<td>01</td>
</tr>
</tbody>
</table>

The Engineer In charge may verify the availability of employed person at any point of time during execution of work.

30.2 Equipment Capability

The tenderer shall own or shall have assured ownership to the following key item of equipment in the full working condition. The bidder shall submit scanned copy of proof ownership of following equipment.

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Name of Equipment</th>
<th>Nos.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drum Mix Plant equipped having capacity minimum 40-60 TPH</td>
<td>1 No</td>
</tr>
<tr>
<td>2</td>
<td>Mechanical paver finisher .</td>
<td>1 No.</td>
</tr>
<tr>
<td>3</td>
<td>Self propelled Mechanical asphalt sprayer</td>
<td>1 No</td>
</tr>
<tr>
<td>4</td>
<td>Vibratory roller</td>
<td>1 No.</td>
</tr>
<tr>
<td>5</td>
<td>Static roller having minimum 8-10 tone capacity</td>
<td>1 No</td>
</tr>
</tbody>
</table>

The Documents in support of ownership of machinery shall be genuine and shall be convincing to the tender opening authority.

31.2 The bidder not owning hot mix plant and machinery or whose own plant is not located within 60 Kms. from farthest point of work site, along the existing road shall submit additional security deposit in Envelope No.1 in the form of F.D.R./B.G. drawn in the name of Executive Engineer Public Works Division No II Nagpur of Rs. 2.18 lakh (i.e.10% of the cost of hot mix component ) drawn on Schedule Bank payable at Nagpur.
The successful bidder within 60 days from date of issue of work order shall submit request to the Engineer in charge for inspection of hot mix plant conforming to M.O.R.T.&H. specification (located within 60 Km. from farthest point of work site along the existing roads) and machinery namely Paver finisher, Mechanical sprayer, Vibratory roller, Static roller etc. required from the hot mix work. Along with the request for inspection he shall submit the notarized agreement with the plant owner that the plant owner is ready to supply him the hot mix material for this work.

After Inspection, Engineer In Charge may accept the request as it is or instruct for some changes if required in the plant and/or machinery which shall be carried out by the contractor at his own cost. After such changes/rectifications fresh request for inspection shall be made. Only after approval of plant and machinery as above by the Engineer In Charge the contractor shall carry out work of hot mix plant from the approved plant and machinery.

Failing to adhere the schedule of submitting RFI and approval of Engineer In Charge the Additional security deposit stand forfeited on 76th day or other such day as decided by the Engineer In Charge keeping on record the reasons for doing so, from the date of issue of work order. The decision of Engineer In Charge in this regard shall be final and binding on the contractor.

30 (B) ONLINE ENVELOPE No.2: (Documents Required)

**ENVELOPE No. 2 TENDER (FINANCIAL BID)**

(i) Offer to be submitted Online

(ii) If the tenderer quotes his offer 1% to 10% below the cost put to tender, he shall submit the Demand Draft of the amount equal to 1% of cost put to tender as Performance Security, in Envelope no. 2 of tender. (Scanned copy shall be submitted along with e-tender)

(iii) If the offer quoted is more than 10% below the cost put to tender, the tenderer shall submit the Demand Draft of the cumulative amount which is equal to the amount by which offer is more than 10% below plus the amount as per(ii)above in Envelop no.2 of tender. (Scanned copy shall be submitted alongwith e-tender ) (For example, for 14% below rate : 1% + (14% - 10%)i.e. 4% thus total 5%)

(iv) The offer in envelope 2 without demand Draft of appropriate amount of performance security shall be treated as invalid offer.

31 Joint Venture

Joint Venture as Bidder is Allowed with following conditions

1) Two or more contractors of any class registered with Government of Maharashtra in Public Works Department may combine and tender for a work costing to the amount up-to which each individual contractor or the higher of two limits if they are of different
to tender as per the original registration provided.

2) The combination shall be of the contractor as a whole and not individual partners

3) The registration of Joint venture deed with the registrar of firms shall be mandatory in case the work is allotted.

4) They shall register in the name of joint Venture on the "http://pwd.maharashtra.etenders.in" For empanelment on the "http://pwd.maharashtra.etenders.in " they shall submit notarized Joint Venture papers to Authority /Engineer In charge.

5) The Empanelment on "http://pwd.maharashtra.etenders.in" shall be only for this work. The notarisation of Joint Venture (partnership) deed shall be prior to such empanelment.

6) In case of Joint Venture, the scanned & digitally signed copy of notarized Joint Venture (partnership) deed, as acceptable to Register of firms, shall be submitted in Envelop No. 1. If joint venture firm is found lowest at the time of opening of bids, the tenderer shall register the joint venture with the Registrar of Firm and submit the same to the Engineer-in-charge within 45 days from the date of opening of tender.
considered non responsive and the Earnest Money shall be forfeited.

7) The lead partner shall be declared explicitly and the lead partner shall meet not less than 50 percent of all qualifying criteria like annual turnover, single work, quantities of items and Bid Capacity. The joint venture must collectively satisfy all qualifying criteria of the bid like annual turnover, single work, quantities of items, Machinery, Technical personnel, financial position and bid capacity etc as stated hereinbefore. The experience of the other joint partners shall be considered if it is not less than 30 percent of the qualifying criteria like annual turnover, single work, quantities of items and Bid capacity above.

8) Whenever the advantage of such combination of two or more contractors is to be taken for quoting for a work, the registered Joint Venture (partnership) deed should be irrevocable till the completion of work for which they have combined and till all the liabilities there of are liquidated and the share of the contractor of higher category should not be less than 50 %. Further the percentage share of the contractor of the lower category in such a Joint Venture (partnership) / combination should not be
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 not exceed his own eligibility limit of tendering for works.)

9) All the partners shall be liable jointly and severally for the execution of the contract in accordance with the Contract terms.
### SCOPE OF WORK

**NAME OF WORK:** ST BT to District Border to Ismailpur Vadviha Mendhala Wadhona Ramathi Armbsi Kharala Loharisawanga to Join SH way 323 Road (MDR 72) Km 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cleaning the site, removing bushes including removal of roots up to 20 cm. circumference and disposal of above stuffs up to a lead of 10 mtr. or as directed by Engineer-In-Charge.</td>
</tr>
<tr>
<td>2</td>
<td>Excavation for widening of metal strips from 3.0 m. to 5.5 m. width in all soils including dressing section to the required grade, camber and side slopes. All the work to be executed by mechanical means.</td>
</tr>
<tr>
<td>3</td>
<td>Excavation for road way / gutter by mechanical means including dressing section to the required grade, camber and side slopes. All the work to be executed by mechanical means.</td>
</tr>
<tr>
<td>4</td>
<td>Transportation of material obtained from debris of various sorts including necessary excavation/loosing including loading, unloading and conveying and disposing as directed.</td>
</tr>
<tr>
<td>5</td>
<td>Compacting the earth work obtained from road cutting, excavation of road side drain by Static roller having weight 8 to 10 MT. and watering etc. Complete.</td>
</tr>
<tr>
<td>6</td>
<td>Scarifying flexible pavements to a depth of 50 mm and disposal of dismantled materials up to a lead up to 1000 metres, stacking serviceable and unserviceable materials separately, including compaction of sub base etc. Complete. (A) By Manual means</td>
</tr>
<tr>
<td>7</td>
<td>Providing &amp; laying granular sub-base as per table 400-1 including, spreading in uniform layers on prepared surface, compacting to the required density as directed etc. Complete.</td>
</tr>
<tr>
<td>8</td>
<td>Providing, laying, spreading and compacting WBM with aggregates of specific grading including spreading in uniform layers, filling up the interstices of coarse aggregate, watering and compacting to the required density as directed etc. Complete.</td>
</tr>
<tr>
<td>9</td>
<td>Providing, laying, spreading and compacting WBM with aggregates of specific grading including spreading in uniform layers, filling up the interstices of coarse aggregate, watering and compacting to the required density as directed etc. Complete.</td>
</tr>
<tr>
<td>10</td>
<td>Supplying murum having PI &lt; 6 at the road side, including conveying and stacking complete.</td>
</tr>
<tr>
<td>11</td>
<td>Spreading gravel / sand / soft murum / available murum over rubble soling / W.B.M. surface blanketing berms etc. complete.</td>
</tr>
<tr>
<td>12</td>
<td>Compacting the hard murum side widths layer on each side with Static roller including necessary artificial watering etc. Complete.</td>
</tr>
<tr>
<td>13</td>
<td>Providing &amp; applying Prime coat with Bitumen VG-10 grade on WBM / WMM of granular base, spraying bitumen @ 0.30 Kg./ Sqm. suitable nozels to achieve uniform dose, including cleaning of road surface by power mechanical sweepers etc. Complete.</td>
</tr>
<tr>
<td>14</td>
<td>Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, transport and mixing @ 1.75 kg / sqm, spreading 12 mm size chips compacting with Static roller having weight 8 to 10 MT. to achieve the CBR of 15 etc. Complete.</td>
</tr>
</tbody>
</table>
Providing, laying and compacting of built-up-spray grout layer 75 mm thick over prepared base consisting of two layers of aggregates placed on top of the second layer and compacting with static roller 8 to 10 Mt. Including cost of tack coat.

Providing, laying and rolling open - graded premix surfacing (Hot Mix Hot Laid) of 20 mm thickness composed of 13.2 mm to 16 mm aggregate grading with paver finishing, finisher and rolling with static roller of 8-10 MT, finished to required level and grades. Including cost of tack coat.

Providing bituminous Type B Premix seal coat on bituminous surface, including supplying all materials & bitumen of VG-30 Grade @ 1.520 Kg/ Sqm after each layer, (i.e 1.520x2=3.04 say 3.00 Kg/Sqm) and with key aggregates placed on top of the second layer and compacting with static roller 8 to 10 Mt. Including cost of tack coat.

Providing and laying cement concrete pipe of I.S.458/2003 N.P. 2 class of required diameter in proper line, level and slope including providing, fixing collars or spigot and socket joint by rubber ring and in C.M.1:2 etc. complete.

Providing and laying R.C.C. 1:2:4 5'th Km. Stone on S.H. and M.D.R. etc. including cost of reinforcement @ 100 kg / cum), painting, numbering etc complete.

Providing R.C.C 1:2:4 ordinary km. Stones including cost of reinforcement @ 100 kg / cum), painting numbering etc. complete.

Retro-Reflectorised Traffic Signs Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign boards of 25mm to 4.00 mm thick ACP Sheeting Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with a properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing. The angle iron post shall be duly painted with alternate black and white bands of 25 cm width including GI fixures and transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retro-reflective sheeting should be with specified durability and stipulated retro-reflectance of retro-reflective sheeting. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.

Direction and Place Identification signs upto 0.9 sqm size board. Providing and erecting direction and place identification signs of any size made out 16 guage (1.6 mm) thick green stove enamel paint on front side and grey stove enamel on back side and border / message / symbols etc. with cut out of High intensity micro Prismatic grade sheeting (Type IV) vide clause no 801.3.3 as per ASTM D 4956 specifications, supported including M.S. angle frame of 35 mm x 35 mm x 3 mm and two M.S. angle iron post of size 65 mm x 65 mm x 6mm, 3.65 m long properly cross braced with angle iron of size 50 mm x 50 mm x 5 mm duly painted with alternate black and white bands of 25 cm width including transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retroreflective sheeting should be with specified durability, performance,durability & stipulated retro-reflectance. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.
<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
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<tbody>
<tr>
<td>25</td>
<td>Excavation for catch water gutter in all sort of soils, soft murum by manual means to the specified section including shoring and strutting as necessary and disposing off unsuitable or excess stuff up to a lead of 50 m and spreading etc. complete.</td>
</tr>
<tr>
<td>26</td>
<td>Excavation for foundation in earth, soils of all types, sand, gravel soft murum etc. including shoring and strutting as necessary and disposing off excavated stuff within a lead of 100 m as directed etc. complete.</td>
</tr>
<tr>
<td>27</td>
<td>Providing soling using 80 mm size granite / quartzite / gneiss metal (including Royalty)</td>
</tr>
<tr>
<td>28</td>
<td>Providing and laying in situ, cement concrete M-10/(1:3:6) of trap/granite/quartzite/gneiss metal. 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering/formwork will not be allowed.)</td>
</tr>
<tr>
<td>29</td>
<td>Providing and laying in situ cement concrete M-20 grade of trap / granite / quartzite / gneiss metal for foundation and footings of R.C.C. columns and steel stanchions including bailing out water, plywood/steel formwork, compaction, curing and roughening the surface if special finish is to be provided, finishing uneven and honeycombed surface, curing etc. complete.</td>
</tr>
<tr>
<td>30</td>
<td>Providing and laying in situ cement concrete of M-20 grade of trap / granite / quartzite / gneiss metal for R.C.C. work in face of cross drainage work as per drawings including bailing out water, plywood/steel formwork, compaction by vibrator, filling joints with bitumen, curing etc. complete. (Excluding reinforcement and structural steel, including cover block) The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering/formwork will not be allowed).</td>
</tr>
<tr>
<td>31</td>
<td>Providing PRECAST M-20 R.C.C. slabs over the spans of Cross Drainage work as per drawing including reinforcement, conveyance, fixing in C.M. 1:3 and curing, finishing etc. complete.</td>
</tr>
<tr>
<td>32</td>
<td>Providing and fixing AC / UPVC pipes of 110 mm diameter and of required length for relieving water pressure, stone filter as directed complete. (For relieving water pressure in raft abutment riding returns)</td>
</tr>
<tr>
<td>33</td>
<td>Providing and filling sand below raft and in box return including watering and compaction etc. complete.</td>
</tr>
<tr>
<td>34</td>
<td>Providing and cutting, bending, hooking, laying, in position and tying bar reinforcement as per detailed drawing for R.C.C. works etc. complete.</td>
</tr>
</tbody>
</table>
PERCENTAGE RATE TENDER AND CONTRACT FOR WORK

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 Executive Engineer and signed by Executive Engineer, Public Works Division No.II, Nagpur.

The form will state the work to be carried out as well as date of submitting and opening tender 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. It will also state whether quarry fees, royalties and ground floor rents will be granted. Copies of the specifications designs and drawings and estimated rates, schedule rates and any other documents required in connection with the work which will be signed by Executive Engineer for the purpose of identification shall also be open for inspection by contractors at the office of the Executive Engineer during office hours.

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

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 authorising him to do so.

A (i) The contractor shall pay along with the tender the sum of Rs. 1,00,000/- as and by way of earnest money. Earnest money shall be paid via online using NEFT/RTGS or payment gateway mode. 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 towards the amount 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 relieve him from liability under the provision of sub-clause (i) above.

Contractor No. of Corrections Executive Engineer
refunded to him on his producing the receipt thereof.

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 of estimated quantities stating at what rate he is willing to undertake all 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 for 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. Tenderers shall have the name and the number of work to which they refer written outside the envelope.

5) The Superintending Engineer, P. W. Circle, Nagpur or his duly authorized assistant will 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 refund the amount of earnest money deposited by the contractor online.

6) The officer competent to dispose of the tender shall have the right to reject any or all 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 Executive Engineer.

8) The memorandum of the work to be tendered for and the schedule of materials to be supplied by the Public Works Department and their rates shall be filled in and completed by the office of the Executive 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 office to have done this before the completes and delivers his tender.

9) All work shall be measured net by standard measure and according to the rules and customs of the Public Works Department without reference to any local custom.

10) Under no circumstance shall any contractor be entitled to claim enhanced rates for any item in this contract.

11) All correction and additions or pasted slips should be initialed.

12) The measurement of work will be taken according to the usual method in the Public Work Department and no proposal to adopt alternative methods will be accepted. The Executive
binding on all parties.

(i) The contractor shall give a list of machinery in their possession and which they propose to use on the work.

(ii) 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 for use in the presence of the Departmental Person. No materials will be allowed to be removed from site of the work.

13) The tender will be liable to be rejected, if while submitting it, the tenderer or in the case of a firm each partner thereof does not sign or the signature / signatures is / are not attested by a witness of the tender in the space provided for the purpose.

14) **Use of Government Machinery**

(a) If Government Machinery is available and the contractor desires to hire it for Work on the project it may be hired to him subject to the rules and hire charges that may be laid down by the Government from time to time during the currency of tender.

(b) No security will be taken from the contractor, so long as the machinery is worked by the departmental staff and under the entire control of department and is not handed over to the contractor at all for operation by his crew and staff and the charges for the use of machinery are levied on hourly basis and as per prevailing schedule of rate for hire charges.

(c) Machinery should be worked only where the departmental staff is confidant to use it safely & never in difficult situation and dangerous spot.

(d) The recovery of plant hire charges will be immediately made through the next Running Accounts bills.

15) The tendering contractors shall furnish a declaration along with the tender showing all works for he has already entered into contract, and the value of work that remains to be executed in each case on the date of submitting tender.

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 issued to him under schedule ‘A’ of the agreement. The materials will then be taken for use in the presence of the departmental person. No material 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 cost of works in hand, the works completed against each with certificate from head of the office concerned.
TENDER FOR WORKS

I / We hereby tender for the execution for the Governor of Maharashtra (here in before and here in after referred to as Government) of the work specified in the under written memorandum within the time specified in such memorandum at* __________________________
__________________________________________
(_________________________________________
_________________________________________
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, drawing and instructions in writing referred to in rule 1 here of 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 the rates to be paid for them shall be as provided in Schedule ‘A’ hereto.

* In figure as well as in words.
MEMORANDUM

(a) If several sub work are included they should be detailed in a separate list.
(b) General Description: ST BT to District Border to Ismailpur Vadvihira Mendhala Wadhona Ramathi Armahi Kharala Loharisawanga to Join SH way 323 Road (MDR 72) Km 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur

c) Estimated cost: Rs. 1,11,71,815/-

d) Earnest Money: Rs. 1,00,000/-

d) Security Deposit:
   (i) Cash (not less than amount of earnest money): Rs. 2,23,500/-
   (ii) To be deducted from current bills: Rs. 2,23,500/-
   Total: Rs. 4,47,000/-

e) This percentage where no security deposit is taken will vary from 5% to 10% according to the requirement of the case. Where security deposit is taken see note to clause (1) of condition of contract.
(e) Percentage, if any, to be deducted from bill so as to make up the total amount required as security deposit by time the half the work as measured by the cost is done 4 percent.

(f) Give schedule where necessary, showing dates by which various items to be completed.
(f) Time allowed for the work from date of written order to commence is 6(Six) Calendar Months including monsoon should this tender be accepted.

I / We hereby agree that this offer shall remain open for acceptance for a minimum period of 90 days from the date fixed for opening the same and thereafter until it is withdrawn by 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 _________ Term Deposit Receipt; in respect of sum of Rs. 1,00,000/- 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) signed and complete the contract documents required by the Engineer and furnish the security deposit as specified in item (d) of memorandum contained in paragraph 1 above, within the time limit laid down in clause (i) of the annexed general conditions of the contract. The amount of earnest 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 above, within the time limit laid down in clause (i) of the annexed general conditions of the contract. The amount of earnest 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.

Contractor

No. of Corrections

Executive Engineer
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. ___________ Dt. __________ from the government Treasury at __________ representing the earnest money (a) the full value of which is to be absolutely forfeited to Government should/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 shall be refunded.

**Contractor**

Signature of Contractor before submission of tender. (Address)
Dated the __________________ day of __________ 2016

**Witness**

Signature of witness to Contractor’s Signature. (Address)
Dated the __________________ day of __________ 2016

Signature of the officer by whom accepted. The above tender is hereby accepted by me on behalf of the Governor of Maharashtra.

**Executive Engineer**

Public Works Division No,II, Nagpur

Dated the __________________ day of __________ 2016
CONDITIONS OF CONTRACT

Security Deposit

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 Executive Engineer in cash or Govt. securities endorsed to the Executive Engineer (if deposited for more than 12 months) of sum sufficient which will make up the full security deposit specified in tender or (B) permit Government at the time of making any payment to him for work done under the contract to deduct such as will amount to 4(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, a the sum so deposited shall not amount to 4(Four) 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 payment to the contractor for work done under the contract to make up the full amount of 4(Four) 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 there after make good in cash or Government securities endorsed as aforesaid, any sums or sums which may have been deducted from or raised by sale of his security deposits or may part thereof. The security deposit referred to, when paid in cash may, at the cost of the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.
If the amount of the Security Deposit to be paid in 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 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, then subject to provisions of clause 17 and 20 here of 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 at (e).

** Compensation for delay  

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 the essence of the contract on part of the contractor) and the contractor shall pay as compensation an amount equal to one percent, or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown in the tender for every day that work remains un-commenced, or unfinished after the proper dates. 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 month to complete.

- 1/4 of the work in 1/4 of the time
- 1/2 of the work in 1/2 of the time
- 2/3 of the work in 2/3 of the time

Full work 6(Six) Calendar Months (Including Monsoon)

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 Superintending Engineer (whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that the due quantity of work remains incomplete. Provided always that the total amount 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. Superintending Engineer should be the final authority in this respect irrespective of the fact that the tender is accepted by Chief Engineer, P. W. Region, Nagpur

** Action when whole of Security Deposit is forfeited.  

Clause 3: In any case in which under any clause or clauses of this contracts 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 Executive Engineer on behalf of the Governor of Maharashtra shall have power to adopt any of the following courses as he may deem best suited to the interest of Government.
a) To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Executive Engineer shall be conclusive evidence) and in that case the security deposit of the Contractor shall stand forfeited and be absolutely at the disposal of Government.

b) To carry out of work or any part of the work departmentally debiting the contractor with 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 unexecuted part of the work completed and crediting him with the value of the work done 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 Executive Engineer as to 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.

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 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. This certificate of the Executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work done by the new contractor and as to the value of the work so done shall be final and conclusive against contractor.

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 actually performed by him under this contract unless and until the Executive Engineer shall have certified in writing the performance of such work and the amount payable to him in respect thereof he shall only be entitled to be 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 contract 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 Executive Engineer, the contractor shall have no claim to compensation for any loss sustained by 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.

**Action when process of particular work is unsatisfactory**

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<th>Contractor</th>
<th>No. of Corrections</th>
<th>Executive Engineer</th>
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**Clause 4** : If the progress of any particular portion of the work is unsatisfactory the Executive Engineer shall not with standing that 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.
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 have been exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall not-with standing 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) of clause (3) he may, if he so desires, take possession of all or any tool 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 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 the case of contract rates not being applicable at current market rates, to be certified by the Executive Engineer whose certificate there of shall be final. In the alternative the Executive Engineer may, by 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 Executive Engineer may remove them at the contractor’s expenses or sale them by auction or private sale, at risk and account of the contractor.

Clause 6: If the contractor desires an extension of the time for completion of the work on the ground of his having unavoidable hindering in it execution or on the other ground, he shall apply in writing to the Executive 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 ever extension occurred, which ever is earlier and the Executive 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 Executive Engineer in this matter shall be final.

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 what so ever 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.

Clause 7: On completion of the work the contractor shall be finished with a certificate by the Executive 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, 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 or 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 the said measurement being binding and conclusive against the contractor. If the contractor fails to comply with the requirement of the clause
before the date fixed for the completion of the work. The Executive-in-charge may at the expense of the contractor, remove such scaffolding, surplus materials and rubbish and dispose off the same as he think fit and clean of such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

Clause 8: No payment shall be made for any work estimated to cost less than Rs. One thousand till after the whole of the said work shall have been completed and a certificate of completion given. But in the case of the works estimated to cost more than Rs. One thousand, the contractor shall not submitting a monthly bill there off 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 final and conclusive against the contractor. All such intermediate payment shall be regarded as payment by way of advance against the final payment 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 rejected, nor shall any such payment be considered as an admission of the due performance of the contractor or any part thereof, in any respect of 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 months 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.

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.

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 submitted 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 ten days from the presentation of the bill. If the contractor does not submit the bill within time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly 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.
application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender, at the rate hereinafter provided for such work.

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 to be provided by the Engineer-in-charge (such material and stores, and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so in any way to control the meaning or effect of this construction 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 purpose of the construction only, and values of the full quantity of materials and stores as supplied shall be set off or reduced from any sums then due, or hereafter to become due to the contractor under the contract or otherwise or from the security deposits, or the proceeds of sale thereof, if the deposit is held in 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 material unused and is perfectly in good condition at the time of completion or determination of the contract shall be returned to the Public Works Department stores, if the Engineer-in-charge so requires by a notice in writing given under his hand, but the contractor shall not be entitled to return any such materials except with such consent and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage into damage thereto.

Clause 12 A: All store of contractor material such as cement, steel, Bitumen etc. Supplied by the contractor at his own cost should be kept by the contractor under lock and key and will be accessible for inspection by the Executive Engineer or his agent at all times.

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, 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 contracts 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. 500/- per set of contact drawing and Rs. 150/- per working drawing except where otherwise specified.

Clause 14: The Engineer-in-charge shall have power to make any alterations in, or additions to, the original specifications, drawings, designs and instructions, that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as a part of the work shall
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 mutually agreed upon between the Engineer-in-charge and the contractor, whichever are lower. If the additional or altered work, for which no rate is entered in the schedule of rates of the division, is ordered to be carried out before the rates are agreed upon, then the contractor shall within seven days of the date of receipt by him of order to carry out work inform the Engineer-in-charge of the rate which it is his intention to charge for such class of work, and if the Engineer-in-charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable, provided always that if the contractor shall commence work or incurs any expenditure in regard thereto before the rate shall have been determined as lastly herein-before mentioned then in such case he shall only be 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.

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

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 contact work and the certificate of the Engineer-in-charge as to such proportion shall be conclusive.

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 for any period 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 or any part or 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.
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 notice in writing to the Engineer, within 30 days of the 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.

Where the Engineer requires the contractor to suspend the work for a period in excess of 30 days at anytime or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days 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, had 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 what-so-ever 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.

In the event of

(i) Any total stoppage of work on notice from the engineer under sub-clause (1).

(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.

(iii) Curtailment in the quantity of any item or items originally tendered on account of any alteration, omission or substitution in the specifications, drawings, designs or instructions under clause 14(1) where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25% at the rate for the items specified in the tender is more than Rs. Five Thousand (Rs. 5000/-)

It shall be open to the contractor within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligation under the contract on account of the continued suspension of the work (iii) notice under clause 14(1) resulting such curtailment or 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
Contractor accepted tender and are of quality and specification approved by the Engineer.

**Clause 16:** Under no circumstance what so ever 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.

**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 or the work, that any work has been executed with unsound, imperfect unskilled workmanship or with materials of inferior quality, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or are otherwise not in accordance with the contractor, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then not withstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part, as the case may be require or if so required, shall remove the materials or articles so specified and provided other proper and suitable materials or article 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 article complained of, as the case may be, at the risk and expense in all respects of the contractor. Should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix therefor.

**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 to inspection and supervision of the Engineer-in-charge and his subordinates and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge of 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 that 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.
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 and shall not cover 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 contractors expense and in default thereof payment or allowance shall be made for such work or for the materials with which the same was executed.

Clause 20: If during the period of 24(Twenty Four) months from the date of completion as certified by the Engineer-in-charge pursuant to the clause 7 of the contract or 30(Thirty) months after commissioning of the work whichever is earlier in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt on the notice in that behalf from the Executive Engineer, duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying 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 Executive Engineer. In the event of the contractor failing and neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice the Executive Engineer may get the same executed and carried out departmentally or by 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 costs, 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 expense shall be deemed to be arrears of land revenue and in the event of 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 thereafter becomes payable by government to the contractor either-in-respect of the said work or any other work whatsoever, or from the amount of the security deposit retained by government.

Clause 21: The contractor shall supply at his own cost all materials (except such special material if any) as may be supplied from the Public Works Department Stores, in accordance with the contract, plant, tolls, 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 form, 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 requirements of the Engineer-in-charges as to any matter on which
And is liable for damages arising from non-provisions of lights, fencing etc.

under these Conditions he is entitled to be satisfied, or which be 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 works 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 expense 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 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 defense 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.

Clause 21A: The contractor shall provide suitable scaffolds and working platforms, gangways, and stairways and shall comply with the following regulations in connection therewith:

<table>
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<tr>
<th>Clause 21A</th>
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<tbody>
<tr>
<td>a) Suitable scaffolds shall be provided for workmen for all work that cannot be safely done from a ladder or by other means.</td>
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<td>b) A scaffold shall not be constructed, taken down substantially altered except -</td>
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<td>i) Under the supervision of a competent and responsible. Person, and</td>
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<td>ii) As far as possible by competent workers possessing adequate experience in this kind of work.</td>
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<td>c) All scaffolds and appliance connected therewith and all leaders shall -</td>
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<td>i) Be of sound material</td>
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<td>ii) Be of adequate strength having regard to the loads and strains to which they will be subjected, and</td>
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<td>iii) Be maintained in proper condition.</td>
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<td>d) Scaffolds shall be so constructed that no part there of can be displaced in consequence of normal use.</td>
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<td>e) Scaffolds shall not be overloaded and as far as practicable the load shall be evenly distributed.</td>
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<td>f) Before installing lifting gear on scaffolds special precaution shall be taken to ensure the strength and stability of the scaffolds.</td>
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<td>g) Scaffolds shall be periodically inspected by a competent person.</td>
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h) Before allowing a scaffold to be used by his workmen, the contractor shall check whether the scaffold has been erected by his workmen or not take steps and to ensure that it complies fully with the regulations herein specified.

i) Working platforms, gangways, and stairways shall -
   i) Be so constructed that no part thereof can sag unduly or unequally.
   ii) Be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping, and

j) In the case of working platforms, gangways, working places and stairways at a height exceeding 3 meters.
   i) Every working platform and every gangways shall have to be closely boarded unless other adequate measures are taken to ensure safety.
   ii) Every working platform, gangways, working places, stairway shall be suitably fenced.

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 suitably means to prevent the fall of persons or material.

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

m) Suitable precautions shall be taken to prevent persons being struck by articles, which might fall from scaffolds or other working place. Safe means of access shall be provided to all working platforms and other working places.

n) Safe means of access shall be provided to all working platform and other working places.

Clause 21 B: The contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him.

a) Hoisting machines and tackle, including their attachment, anchorage’s and sports shall -
   i) Be of good mechanical construction, sound material and adequate strength and free from patent defect, and
   ii) Be kept in good repair and in good working order.

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.
c) Hoisting machines and tackle shall be examined and adequately tested after erected on the site and before use and be reexamined in position at intervals to be prescribed by the government.

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.

e) Every crane driver or hoisting appliance operator shall be properly qualified.

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.

g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension the safe working load shall be ascertained by adequate.

h) Every hoisting machine and all gear referred to in the preceding regulation shall be plainly marked with the safe working load.

i) In the case of hoisting machine having a variable safe working load, each safe working load and condition under which it is applicable shall be clearly indicated.

j) No part of any hoisting machine or of any gear referred to in regulations of above shall be loaded beyond the safe working load except for the purpose of testing.

k) Motors, gearing transmissions, electric wiring and other dangerous part of hoisting appliance shall be provided with efficient safe guards.

l) Hoisting appliances shall be provided with such means as will reduce to a minimum risk of the accidental descent of the load.

m) Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

**Measure for prevention of fire.**

**Clause 22:** The contractor shall not set fire to any standing jungle, trees, bush wood or grass without a written permit from the Executive Engineer.

When such permit is given and also in all cases when destroying cut or dug up trees, bush 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 arrangement for drinking water for the labour employed by him.

**Liability of contractors for any damage done in or outside work area.**

**Clause 23:** Compensation for all damage done intentionally or unintentionally by contractors’ labour whether in or beyond the limits of contractor for government property including any damage caused by the spreading of any damage 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 contract price.
in-charge from any sum that may be due to or become due from government to the contractor under this contract or otherwise. The contractor shall bear the expenses of defending any action or other legal proceeding that may be brought by any person for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall also pay any damages and cost that may be awarded by the court in consequence.

Clause 24: The employment of female labourers on works in the neighborhood of soldier's barracks should be avoided as far as possible.

Clause 25: No work shall be done on a Sunday without the sanction in writing of the Engineer-in-charge.

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, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised by the contractor or any of his servants or agents to any public officer or person in the employment of government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-charge may be giving notice in writing rescind the contract. In the event of a contract being rescinded, the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of the Government and same consequences shall as ensure as if the contract has 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.

Clause 27: All sum payable by a contractor by way of compensation under any of these condition shall be considered as a reasonable compensation to be applied of the use of Government without reference to the actual loss or damage sustained and whether any damage has or has not been sustained.

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

Clause 29: All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the Circle for the time being, who shall be entitled to direct at what point or points and in what manner they are commenced and from time to time carried out.
under direction and control of Superintending Engineer. 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 instructions 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, drawings, specifications, estimates, instructions, orders of these conditions or otherwise concerning the works or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof.

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

(a) The accepted value of the contract exceeds Rs. 10 lacks (Rupees Ten Lakhs)

(b) Amount of claim is not less than Rs. 1.00 lakh (Rupees one lakh)

(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, Public Works Department who, if convinced the prima-facie the contractor’s 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.

Store of European or American manufactures to be obtained from the Government

Clause 31: The contractor shall obtain from the P.W.D. stores all stores and article of European or American manufacture which may be required for the work, or any part of the work or in making up any article 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.

Lump sums in estimates.

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 part of the work question is not in the opinion of the Engineer-in-charge capable of measurement the Engineer-in-charge may at his discretion pay lump sum amount entered in the estimate, and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provision of this clause.

Action where no specification.

Clause 33: In the case of any class of work for which there is no such specification as in 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 specification, 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.
**Definition of work.**

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 work contractor to be executed under or in virtue of the contract, whether temporary or permanent and whether original altered substituted or additional.

**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 and royalties.**

Clause 36: All quarry fees, royalties, octroi dues and ground rent for stacking materials if any, should be paid by the contractor.

**Compensation under Workman’s Compensation Act.**

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), (hereinafter compensation is payable and or paid by Government as principal under the subsection 91) of section 12 of the said Act on behalf of the contractor this shall be recoverable by Government from the contractor under sub section 92) of the said section. Such compensation shall be recovered in the manner laid down in clause 1 above.

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 on 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.

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:

(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.

(b) When work 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 prompt rescue of any person in danger.

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

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 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.**

Clause 38: (1) Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in the tender or estimate.
(2) 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 specifications prescribing a different percentage of permissible variation in the quantity of the item does not exceed the tender quantity by more than 25 percent 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/-
(3) The contractor shall if ordered in writing by the Engineer so to do, also carry out any quantities in excess of the limit mentioned in sub-clause (i) hereof 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 rates prevailing in the market. The said rates increased or decreased as the case may be, by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based upon the schedule of rates applicable to the year in which the tenders were accepted (For the purpose of operation of this clause, this cost shall be as worked out from D.S.R. prevailing at the time of acceptance of tender.)

(4) Claims arising out of reduction in the tendered quantity of any item beyond 25 percent will be governed by the provision of clause 15 only when the amount of such reduction beyond 25 percent at the rate of the item specified in the tender is more than Rs.5,000/- (This clause is not applicable to extra items)

| Clause 39 | The contractor shall employ any female, convict or other labour of a particular kind of class if ordered in writing to do so by the Engineer-in-charge. |
| 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 sanction to estimates. |
| 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. |
| 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. |
| Clause 43 : (i) | No contractor shall employ any person who is under the age of 18 years. |
| (ii) | 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 animals 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 the work any person or animal found working which does not satisfy these conditions and no responsibilities 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 disputes 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 Executive Engineer who shall decide the same. The decision of the Executive Engineer shall be conclusive and binding on the contractor, but such decision shall not in any way affect the 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.

Method of payment.

**Clause 44:** Payments to contractor shall be made by cheques drawn on any treasury within the Division convenient to them, provided the amount exceeds Rs. 100/- Amount not exceeding Rs. 100/- 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 declares a state of scarcity or famine to exist in any village situated within 1 Kms. of work, the contractor shall employ upon such parts of the work as suitable for unskilled labour any person certified to him by the Executive Engineer or by any person to whom Executive 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 Executive Engineer whose decision shall be final and binding on the contractor.

**Clause 47:** The price quoted by the contractors shall not in any case exceed the control price, if any, fixed by Government or reasonable price which is permissible for him to charge as private purchaser for the same class and description of goods under the provisions of Hoarding and profiteering Prevention Ordinance 1984 as amended from time to time. If the price quoted exceeds the controlled price or the price permissible under Hoarding and Profiteering Prevention Ordinance, the contractor will specifically mention this fact in his tender along with reasons for quoting such higher price. The purchaser at his discretion will in such higher price. The purchaser at his discretion will in such case exercises the right of revising the price at any stage so as to confirm with the controlled price on the permissible under the Hoarding and Profiteering Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

**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 applicable to the Zone in accordance with the order issued in Government P.W.D./Circular No. MWA/ 1063, dated 07/12/1968.
Clause 49: In case of materials that remains surplus with the contractor for those issued for the work contracted from the date of ascertainment 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.

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 Department Scheme. Provided, however, that if the required unskilled laboured 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 Engineer-in-charge of the said work obtained the rest of requirement of unskilled the labour from outside the above scheme.

Clause 51: Deleted

Clause 52: All amount 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 (1) Material and / or stores supplied / issued hereunder by the Government to the contractor, (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 lands 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.

Clause 53: The contractor shall duly comply with all the provisions of the contract labour (Regulation and Abolition) Act 1970. (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) Rules 1971 as amended from time to time and all other relevant statutes and statutory provision concerning payment of wages particularly to workmen employed by the contractor and working on the site of the work. In particular the Contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labour (Regulation and Abolition) Rules 1971. If the contractor fails or neglects to pay wages at the said rates or make short payment and the Government makes such payment of wages in full or part thereof less paid by the contractor, as the case may be the amount so paid by the Government to such worker shall be deemed to be arrears of land revenue and the Government shall be entitled to recover the same as such from the contractor or deduct the same from the amount payable by the Government to the contractor hereunder or from any other amounts payable to him by the Government (Minimum Wages Act, as per Government Circular (AT / 1284 / (120) / Building, dated 14/08/1988).

Price Variation

Clause 54: If during the operative period of the contract as defined in condition (i) below, there shall be any variation in the consumer price index (New series) for industrial Workers for Nagpur Center as per the Labour Gazette published by the Commissioner of Labour, Government of Maharashtra and or in the Wholesale Price index for all commodities, prepared by the office of Economic Advisor, Ministry of Industry, Government of India or in the price of petrol / Oil and Lubricants, and major construction material like bitumen, cement, steel, various type of metal, pipes, etc. then subject to the other conditions mentioned below, price adjustment on account of
(i) Labour component,
(ii) Material component,
(iii) Petrol Oil and Lubricants components
(iv) Bitumen component
(v) HYSD & Mild / T.M.T / Structural Steel component
(vi) Cement component

Calculated as per formula hereinafter appearing shall be made. Apart from these, no other adjustment shall be made to the contract price for any reasons whatsoever. Component percentages as given below are as of the total cost of work put to tender. Total of Labour, Material & POL components shall be 100 and other components shall be as per actual.

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Labour Component - K&lt;sub&gt;1&lt;/sub&gt;</td>
<td>7.62 %</td>
</tr>
<tr>
<td>2</td>
<td>Material Component - K&lt;sub&gt;2&lt;/sub&gt;</td>
<td>76.80 %</td>
</tr>
<tr>
<td>3</td>
<td>POL Component - K&lt;sub&gt;3&lt;/sub&gt;</td>
<td>15.58 %</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100 %</td>
</tr>
<tr>
<td>4</td>
<td>Bitumen Component</td>
<td>Actual</td>
</tr>
<tr>
<td>5</td>
<td>HYSD &amp; Mild / T.M.T / Structural Steel component</td>
<td>Actual</td>
</tr>
<tr>
<td>6</td>
<td>Cement Component</td>
<td>Actual</td>
</tr>
</tbody>
</table>

(1) **FORMULA FOR LABOUR COMPONENT:**

\[ V_1 = 0.85 \times P \times \left( \frac{K_1}{100} \right) \times \left[ \frac{L_1 - L_0}{L_0} \right] \]

**WHERE**

\[ V_1 = \text{Amount of price variation in Rupees to be allowed for labour component} \]

\[ P = \text{Cost of work done during the quarter under consideration} \text{ Minus the cost of Cement, Steel and Bitumen calculated at the basic star rates as applicable for the tender consumed during the quarter under consideration. These star rates are specified here} \]

**Star Rates**

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Rate (Rs.) per MT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cement</td>
<td>5000.00</td>
</tr>
<tr>
<td>2</td>
<td>TMT Steel</td>
<td>45410.00</td>
</tr>
<tr>
<td>3</td>
<td>Bitumen VG-30 Grade</td>
<td>31996.00</td>
</tr>
<tr>
<td>4</td>
<td>Bitumen VG-10 Grade</td>
<td>30970.00</td>
</tr>
</tbody>
</table>

\[ K_1 = \text{Percentage of Labour Component as indicated above.} \]

\[ L_0 = \text{Basic Consumer Price Index for Nagpur centre} \text{ shall be average consumer price index for the quarter preceding the month in which the last date prescribed for receipt of tender falls.} \]

\[ L_1 = \text{Average Consumer Price Index for Nagpur Centre for the quarter under Consideration.} \]
(2) FORMULA FOR MATERIAL COMPONENT:

\[ V_2 = 0.85 \times P \times \left( \frac{K_2}{100} \right) \times \left( \frac{M_1 - M_0}{M_0} \right) \]

WHERE

\( V_2 \) = Amount of price variation in Rupees to be allowed for Material Component
\( P \) = Same as worked out for labour component.
\( K_2 \) = Percentage of Material Component as indicated above
\( M_0 \) = Basic Wholesale Price Index shall be average wholesale price index for the Quarter preceding the month in which the last date Prescribed for receipt of tender falls.
\( M_1 \) = Average Wholesale Price Index during the quarter under Consideration
FORMULA FOR PETROL, OIL & LUBRICANT COMPONENT

\[ V_3 = 0.85 \times P \times \left[ \frac{K_3}{100} \right] \times \left[ \frac{P_1 - P_0}{P_2} \right] \]

WHERE

\( V_3 \) = Amount of price variation in Rupees to be allowed for POL component

\( P \) = Same as worked out for labour component.

\( K_3 \) = Percentage of Petrol, Oil and Lubricant component

\( P_0 \) = Average price of H S.D.at Nagpur during the quarter preceding the month in which the last date prescribed for receipt of tender falls

\( P_1 \) = Average Price of HSD at Nagpur during the quarter under consideration
(4) FORMULA FOR MILD STEEL/ TMT/ STRUCTURAL STEEL COMPONENT

\[ V_5 = S_0 \left( \frac{S_{l1} - S_{l0}}{S_{l0}} \right) \times T \]

WHERE

\( V_5 \) = Amount of price variation in Rupees to be allowed Mild Steel TMT Steel component.

\( S_0 \) = Basic rate of T.M.T. / HYS / Mild Steel in rupees per metric tonne as considered for working out value of P.

\( S_{l1} \) = Average Steel Index published in the RBI Bulletin during the quarter under consideration.

\( S_{l0} \) = Average of Steel Index published in the RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

\( T \) = Tonnage of steel used in the permanent works for the quarter under consideration.

(5) FORMULA FOR CEMENT COMPONENT

\[ V_6 = C_0 \left( \frac{C_{l1} - C_{l0}}{C_{l0}} \right) \times T \]

WHERE

\( V_6 \) = Amount of price variation in Rupees to be allowed for cement component.

\( C_0 \) = Basic rate of cement in rupees per metric tonne as considered for working out value of P.

\( C_{l1} \) = Average cement Index published in the RBI Bulletin for the quarter under consideration.

\( C_{l0} \) = Average of cement Index published in the RBI Bulletin for the quarter preceding the month in which the last date prescribed for receipt of tender falls.

\( T \) = Tonnage of cement used in the permanent works for the quarter under consideration.

(6) FORMULA FOR BITUMEN COMPONENT:

\[ V_4 = Q_B \left( B_1 - B_0 \right) \]

WHERE

\( V_4 \) = Amount of price variation in Rupees to be allowed for Bitumen component.

\( Q_B \) = Quantity of Bitumen (Grade) in metric tonnes used in the permanent works and approved enabling works during the quarter under consideration.

\( B_1 \) = Current average ex-refinery price per metric tonne of Bitumen (Grade) under consideration including taxes (octroi, excise, sales tax) during the quarter under consideration.

\( B_0 \) = Basic rate of Bitumen in rupees per metric tonne as considered for working out value of P or average ex-refinery price in rupees per metric tonne including taxes (octroi, excise, sales tax, VAT) of Bitumen for the grade of bitumen under consideration prevailing quarter preceding the month in which the last date prescribed for receipt of tender falls, whichever is higher.

The following conditions shall prevail:

i) The operative period of the contract shall mean the period commencing from the
for the completion of work specified in the contract for work expires taking into consideration the extension of time if any for completion of the work granted by Engineer under the relevant clause of the conditions of contract in cases other than those where such extension is necessitated on account of default of the contractor. The decision of the Engineer as regards the operative period of the contract shall be final and binding on the contractor. Where any compensation for liquidated damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions the price adjustment amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices $L_1$, $M_1$, $B_1$, $P_1$, $C_1$ and $S_1$ to the levels corresponding to the date from which such compensation is levied.

ii) The price variation under this clause shall not be payable for the extra items required to be executed during the completion of the work and also on the excess quantities payable under the provisions of Clause 38 of the contract form B-1 since the rates payable for the extra items or the extra quantities under the clause 38 are to be fixed as per the current DSR or as mutually agreed subject to yearly revision till completion of such work. In other words, when the completion/execution of extra items as well as extra quantities under clause 38 of the contract form B-1 extends beyond the operative date of the DSR, from the rates payable for the same beyond the date shall be revised with reference to the next current DSR prevalent at that time on year to year basis or revised rates, in accordance with mutual agreement thereon, as provided for in the contract, whichever is less.
iii) This clause is operative both ways, i.e. if the price variation as calculated above is in on the plus side, payment on account of the price variation shall be allowed to the contractor and if it is on the negative side, the Government shall be entitled to recover the same from the contractor and amount shall be deductible from any amounts due and payable under the contract.

iv) To the extent that full compensation for any rise or fall in costs to the contractor is not entirely covered by the provision of this or other clauses in the contract, the unit rate and prices included in the contract shall be deemed to include amounts to cover the contingency of such other actual rise or fall in costs.

**Clause 55 : (A)** The anti-malaria and other health measures shall be as directed by he Joint Director (Malaria and Filaria) of Health Services, Pune.

**(B)** Contractor shall see that mosquitogenic conditions are not created so as to keep vector population for minimum level.

**(C)** Contractor shall carry out anti malaria measures in the areas as per guidelines prescribed under National Malaria Eradication Programme as directed by the Joint Director (M & F) of health Services, Pune.

**(D)** In case of a default in carrying out prescribed anti malaria measures, resulting in increase in malaria incidence the contractor shall be liable to pay to Government the amounts spent by Govt. on anti Malaria measures to control the situation in addition to fine.

**(E)** Relations with Public Authorities: The contractor shall make sufficient arrangement 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 so as not to cause any substance. He shall also keep the premise clean by employing sufficient number of sweepers. The contractor shall comply with all rules, regulation 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 to Government.

**Clause 56:** The contractor shall comply with all the provision of the Apprentices Act, 1961 and Rules and Orders issued there under from time to time. If he fails to do so, his failure will be breach of the contract and the Superintending Engineer may in his discretion cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provision of the Act.

**Clause 57:** The tender rates are inclusive of all taxes, rates, cesses and are also inclusive of the leviable tax in respect if sale by transfer of property in goods involved in the execution of a work contract under the provision of Rules 58 of Maharashtra Value Added Tax Act-2005. For the purpose of levy of tax.

**Clause 58 :** In case of material which become surplus with the contractor from those issued for the work contracted from 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 sale tax will be recovered on such sale.
Clause 59(1) : QUALITY ASSURANCE AND MAINTENANCE

To ensure the specific quality of work which will also include necessary surveys, temporary works, etc., the contractor shall prepare a quality assurance plan and get the same approved from the Engineer-in-charge within one month from the date of work order. For this, the contractor shall submit an organisation chart of his technical personnel to be deployed on the work along with their qualification, job description defining the function 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 personnel and equipment on the field 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 property documented through certificates, records, check lists and Log book of results etc. such records shall be complied from the beginning of the work and be continuously updated subsequently and this will be the responsibility of the contractor. The form should be got approved from the Engineer in charge.

Clause 59 (2) : Where the work is to be on lum-sum basis on contractor’s design the contractor shall also submit a maintenance manual giving procedure for maintenance, with the periodically of maintenance works including inspections to be used, means of accessibility for all pats of the structure. He shall also include in the manual, the specification, for maintenance works that would be appropriate for his design and technique of construction. This manual shall be submitting within the contract period.

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 along with 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.

Note: In case provisions of this form B-1 conflicts with those in detailed cyclostyled provisions and conditions attached to this tender. The detailed cyclostyled provision and conditions would prevail over those in this form "B-1".
GENERAL CONDITIONS OF CONTRACT

1. AUTHORITY OF ENGINEER - IN - CHARGE

Save in 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 instructions and directions on any matter (Whether mentioned in the contract or not) pertaining to this work.

The Engineer - in - charge shall decide all questions which may arise as to quality and acceptability of materials furnished and work executed, manner of executions, rate of progress of work, interpretations of the plans and specifications and acceptability of fulfillment of the contract on the part of contractor. He shall determine the amount and quality of 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. The engineer in charge shall have power to enforce such decisions and orders if the contractor fails to carry out them promptly. If the contractor fails to execute the work order by the engineer in charge, the engineer in charge may give notice to the contractor specifying a reasonable period therein and on the expiry of that period proceed to execute such work as may be deemed necessary and recover the cost thereof from the contractor.

1.1 AUTHORITY OF ENGINER-IN-CHARGE REPRESENTATIVE

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

1.2 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 instructions of the 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 department as though 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 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 thereupon confirm reverse or vary such decisions.

2. OTHER CONDITIONS FOR SUBMISSION OF TENDER

2.1 The contractor shall be deemed to have carefully examined the work and site conditions including labours, the general and he special conditions, the specification schedule and drawing and shall be deemed to have visited the site of the work and to have fully informed himself regarding the local conditions and carried out his own investigations to arrive at the rates quoted in the tender. In this regards he will be given necessary information to the best of the 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. Hand Book 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 any treasure, fossils, minerals or any other article of value or interest, the contractor shall give immediate intimation thereof to the Engineer. And forthwith mark over to the Engineer his representative such treasure or things, which shall be the property of Government.

3 –A **LAYOUT OF WORK:**

Layout of the work will be done by the contractor in consultation with the Engineer in charge or his representative. Some permanent marks should be established to indicate the demarcation of the structures or any component thereof made to these permanent marks in measurement books and drawing, signed by the contractor and the departmental officer. Preparation of layout plan and marking it on site will be the responsibility of contractor. Once the layout plan is prepared he should submit it to Engineer incharge or his authorised representative for approval and get it approved from the Engineer in charge. Once the layout plan is approved contractor shall proceed with marking it at site of work.

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 conditions. A qualified and experienced Engineer shall be provided by the contractor as his agent for technical matters. Site engineer can also be designated as an agent of the contractor. Agent will take orders as will be given by the Executive Engineer or his representative and shall be responsible for carrying them out. This agent shall not be changed without prior intimation of the Executive Engineer and his representative on the work site. The Engineer-in-charge has the unquestionable right to ask for changes in the quality and strength of supervisory staff of contractor 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 sign orders given therein by the Executive Engineer or his representative and his superior officer, and comply with them. The compliance shall be reported by contractor to the Engineer in good time so that it can be checked, the blank work order book, with machine numbered pages will be provided by the Department free of charge for this purpose. The contractor will be allowed to copy out the instruction therein from time to time.

5. **INITIAL MEASUREMENT OF RECORD:**

Where for proper measurements of the work it is necessary to have an initial set of levels or other measurements taken the same as recorded in the authorised field book or M.B. of Government by the Engineer or his authorised 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 render him liable to accept the decision of the Engineer as to basis of taking measurements and will be binding on contractor Likewise the contractor will not carry out any work which will render its subsequent measurement difficult or impossible without first getting the same jointly measured and recorded by himself and the authorised representative of the Engineer. The record of such measurement maintained by Government shall be signed by the contractor 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 its regular use as distinct from casual or incidental use except as specially mentioned elsewhere in this contract or as mutually agreed to.

7. **CO-ORDINATION:**

When several agencies for different sub works of the project are to work simultaneously on the project site, there must be full co-ordination between the 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, housing etc. if they so desire. On the other hand the Contractors are at liberty to come to mutual agreement on his behalf and make joint agreement with the approval of the Engineer. No contractor shall take or cause to take any steps or action that may cause destruction, discontent or disturbance to work, labour or arrangements etc.of other contractors in the project localities. Any action by any Contractors which the Engineer in his unquestioned discretion may consider as infringement of the above code would be considered as a breach of the contract conditions and shall be dealt with accordingly.

In case of any dispute or disagreement between the various contractors, the Engineer's decision regarding the co-ordination, co-operation and facilities to be provided by any of the contractor shall be final and binding on the contractor concerned & such a decision shall not vitiate any 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, materials or process covered by letter of patent or copyright, the right for such use shall be secured by suitable legal arrangement and agreement with patent owner and the copy of their agreement shall be filed with the Engineer-in-charge, if so desired by the later.

9. **RELATION WITH PUBLIC AUTHORITIES:**

The contractor shall comply with all rules, regulations, bye-laws and directions given from time-to-time by any local or public authority in connection with this work and shall him-self pay all charges which are leviable on him without any extra cost of Government.

10. **INDEMNITY:**

The contractor shall indemnify the Government against all actions, 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 and against any loss or damage to the Government in consequence to any action or suit being brought against the contractor for any thing done or committed to be done for the execution of this contract.

The Government may at its discretion and entirely at the cost of the contractor defend such suit, either jointly with the contractor or single in case the latter chooses not to defend the case.

11. **STACKING, STORAGE AND GUARDING OF MATERIALS:**

11.1 The stacking and storage of building materials at site shall be in such a manner as to prevent deterioration or inclusion of foreign materials and to ensure the preservation of the quantity, properties and fitness of the work, suitable precautions shall be taken by contractor to protect the materials against atmospheric action, fire and other hazards. 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 enclosure as...
directed shall be provided to separate materials brought by contractor and from different sources of supply.

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

11.3 No Materials brought to site shall be removed from the site without prior approval of the Engineer –in-charge

12. 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 these without affecting 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.

12.3 The contractor shall extend his full co-operation and make all necessary arrangement when needed for carrying out inspection of the work or any part of the work by the local representative, M.L.A’s M.P.’s and officers and dignitaries / delegates of various Government department, local bodies, private sectors etc. no compensation shall be paid to the Contractor on this account.

13. PRECAUTIONS TO BE TAKEN BY CONTRACTOR :

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

13.2 In the event of an accident involving serious injuries or death of any persons, at site of work or quarry or at place in connection with the work the same shall be reported in writing within 24 hours of the occurrence to the Engineer in charge and the Commissioner of workmen’s compensation.

14. CLEARANCE OF SITE ON COMPLETION OF WORK:

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 equipment, tolls, 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. In case the materials is disposed off by department, the sale proceeds will be credited to the contractor's account after deducting the cost sale incurred. However no claim of the contractor regarding the price or amount credited will be entertained afterwards.

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 for the purpose of moving it from one part to the site to another) without the consent in writing of the engineer in charge who shall record the reasons for with holding the consent.

16. RESTRICTIONS BECAUSE OF LOCAL TRAFFIC :

As there is local traffic by the side of construction of the work, 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 that during the progress of execution shall bind the engineer in charge or in any way prevent him for even rejecting the work which is claimed to be completed and to suspend the issue or his certificate of completion until such alterations 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 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 unrectifiable 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 on completion of the work.

17.5 Should regular, public traffic be allowed on the bridge, road at any stage prior to being taken over then the maintenance period shall be deemed to commence from the date of such traffic passing over the bridge, road & shall be upto 30 days after the date of issue of completion certificate by Engineer in charge but not more than 12 months after opening to traffic.

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 allowed for its constructions. Ancillary work shall not be taken up in hand unless approved by Engineer in charge. The Engineer in charge reserves the right to suggest modification 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 modifications to the ancillary works at his own expenses as ordered by the Engineer in charge.

19. **TEMPORARY QUARTER**:

The contractor shall at his own expense maintain sufficient experienced supervisory staff etc., required for the work and shall make his own arrangements for housing of such staff with all necessary amenities. General layout plan for such responsibility of the contractor to get his layout plan of temporary structure approved from the local competent authorities.

20. **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 wherever required. The following are some of the requirements listed though not exhaustive. The contractor shall also comply with the directions issued by the Engineer in this behalf from time to time at all times.

The following are some of the requirements (The list is not exhaustive)
(1) Providing protective footwear to workers in situations like mixing and placing of mortar of concrete, in quarries and place where the work is to be done under too much wet conditions as also for movements over surfaces tested with oyster growth.

(2) Providing protective headwear to workers in quarries etc. to protect them against accidental fall of materials from above.

(3) Providing handrails to the edges of the loading platforms of barrages ropeways, ladders not allowing rails of metal parts or unless timber to spread around etc.

(4) Providing workmen with proper safety belts, ropes, etc. when working on any masts, cranes, circle hoist, dredges etc.

(5) Taking necessary steps towards training the workers concerned of 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 by the law the persons handling the machinery shall have the required license, certificate etc.

(6) Preventing over loading and over crowding of floating the land based machinery and equipment.

(7) Providing life belts to all men working at such situations from where they may accidentally fall into water, equipping the boats with adequate number of life boats etc.

(8) Avoiding bare live wires etc. as would cause electrocution to workers.

(9) Making all platforms, stagings and temporary structures sufficiently strong and not causing the workmen and supervisory staff to take undue risks.

(10) Providing sufficient first aid trained staff and equipment to be available quickly at the work site to render immediate first-aid treatment in case of accident due to suffocation, drowning and other injuries.

(11) Taking the all-necessary precautions wherever divers are engaged on work.

(12) 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-bring 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.**

(a) The contractor shall provide an adequate supply of pure and wholesome water for the use of labourers on works and in camps.

(b) The contractor shall construct trenches, 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. Floor space at the rate of 3 Sqm(30 Sq.ft.) per head shall is 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 Govt.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 on high ground remote from jungle but well provided with trees; shall be chosen wherever it is available. The neighborhood of tank, jungles, trees or woods should be particularly avoided. Camps should not be established close to large cutting of earthwork.

(5) The lines of huts shall have open space of at least 10 meters between rows. When a good natural site cannot 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 also be provided for the purpose of the washing cloths.

(e) The contractor shall make sufficient arrangement for draining away the surface and suage water as well as water from the bathing and washing places and shall dispose of the waste water in such away as not cause any nuisance.

(f) The contractor shall engage a medical officer with a traveling dispensary for a camp containing 500 or more person if there is no Government or other dispensary situated within eight Kilometers from the camp. In case of an emergency contractor shall 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 person should engaged.

(h) The Assistant Director of public health shall be consulted before opening a labour camp and his instruction 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 provision of the relevant labour act pertaining to basic amenities to be provide to the labour shall be applicable which will be arranged by the contractor.

(j) The contractor shall make arrangement for all anti malaria measures to be provided for the labour employed on the work. The anti malaria measures shall be as directed by the Public Health Officer.

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 material etc. immediately after getting the work order. The Government may render necessary assistance in this regard by way of letters of recommendations, if so requested by the contractor. No claim for any extra payment or applications 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-charge in writing the details as 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 well in advance of starting of such item of works. The Engineer-in-charge 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 and progress 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 remain 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 anticipated completion date of each major item of work to be done by him also indicating dates of procurement of materials and setup of plant and machinery. The programme is to be such as practicable of achievement towards the completion of whole work in the time limit and of the particular items; if any of due dates specified in contract, planning and programme of work should be done by the mature decision between the Executive Engineer, Public Works Division No,II , Nagpur and the contractors representative in charge of work. The progress of work shall be reviewed in every two months and revised programmes shall be drawn 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 work by the prescribed time or the extended time if any.

24.3 The contractor shall employ 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 requires supervision shall not be permitted except when specially allowed by Engineer on each item if required by contractor. The contractor shall provide necessary lighting arrangement etc. for night work as directed by Engineer without extra cost to Government.

24.4 The contractor shall submit reports on progress of work in forms and statements etc. at periodical intervals in the form of progress chart, forms, statements and / or reports as may be approved by the Engineer in charge. Forms for the sending reports about the progress will be supplied by the Executive Engineer.

24.5 The contractor shall maintain proforma, charts, details regarding the machinery, equipments, labour, materials, periodical returns thereof, proforma to be got approved from the Engineer in charge.

25. **PAYMENTS**:

The contractor 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, machineries, supervision power, service works, royalties, octroies, taxes, etc. and should also include all expenses to cover the cost of lighting, night works if and when required & no claim for additional payment beyond the rates quoted will be entertained and the contractor will not be entitled subsequently to make any claim on the ground of any representation or on any promise by any person (whether member in the employment of any Public Works Department 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 consequences upon submission of the tender. Payment to the contractor will be made by the cheque drawn on any treasury within the division provided the amount to be paid exceeds Rs. 100/- shall amount will be paid in cash.
26. **CLAIM FOR EXTRA WORKS:**

26.1 Claim for extra works shall be registered within 30 days of occurrence of the event. However, bills for these claims along with supporting data details may be submitted subsequently.

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

27. **BILLS AND PAYMENT:**

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

27.2 The format of the 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 his 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 advance 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 photocopying the same.

**CONTROLLED CONCRETE:**
Acceptance criteria shall be as per IS : 456 – 2000 (With latest amendments)

**NORMAL MIX CONCRETE:**
Acceptance criteria shall be as per IS : 456 – 2000 (With latest amendments)

28. **ASSISTANCE IN PROCURING PRIORITIES, PERMIT ETC:**

28.1 The engineer on written request by 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 priorities for deliveries, transport, permits for controlled materials etc. where such are needed. The department however will not be responsible for the non-availability of such facilities or delays in this behalf and no claims on account of such failure or delay, shall be allowed by the Department.

28.2 The contractor shall have to make his own arrangement for machinery required for the work. However if same is conveniently available with the department it may be spared as per rules in force on recovery of necessary security deposit and rent at the rate approved from time to time by the independent to 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 authority for obtaining the connection and carry the water up to the work site as required by him. The location of the pipeline with respect to the road shall be decided by Engineer-in-charge and shall be binding on the contractor.
department shall not bear any responsibility in respect of any problems and contractor shall not be liable for getting the 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 problems 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 Department’s use at work site shall be provided by the contractor on mutual agreed terms. The contractor may not abide by these conditions when power supply at the site fails.

31. **TELEPHONE FACILITIES** :

The contractor will have to make his own arrangement at his own cost for a telephone connection at work site if required.

32. **MATERIAL SOURCES** :

32.1 The contractor shall make their own independent investigation as to the availability as well as suitability of various materials required for construction as referred to in these paras.

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

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 requisitioned land at his own cost.

33.2 Land as available with department for requisitioned by the department at the request of a contractor will be handed over to the contractor for such use as will be necessary for ancillary works, 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 with the local authorities.

33.3 If for the purpose of construction of the work it becomes necessary for the contractors to occupy land not in possession of the department, the contractors will have to make his own arrangement with the land owners, and pay such compensation as a mutually agreed between them. on completion of work , all land mentioned in para 33.1 and 33.2 and 33.3 shall be handed back to the owners or the department as the case may be after cleaning the land as directed by the Engineer in charge.

33.4 Dismantling of building on a Govt. or department land shall be done only after the approval of Engineer-in-charge.
34. **FLOODS AND ACCIDENTS:**

The contractor shall take all precaution 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 damage to the work during construction. The contractor shall be liable to make good at his cost any plant or material belonging to the Govt. loss or damaged by floods or from any other cause while in his charge. The proof of occurrence of flood report with flood level will have to be furnished by the contractor. No compensation will be allowed for damages on ancillary items and equipment etc which are brought to the site by the contractor for effecting execution of work.

35. **URGENT WORK:**

If any “Urgent Works” (In respect where decision of the Engineer-in-Charge shall be final and binding) become necessary and contractor is unable or unwilling to carry it out at once, the Engineer in charge by his own or through the 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 sets off against any sum payable to him.

36. **CHANGE OF CEMENT CONTENT ETC. : (Applicable for OPC Cement only)**

**THEORETICAL CONSUMPTION OF CEMENT FOR THE CONCRETE WORK:**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Grade of concrete</th>
<th>Consumption of cement in bags / Cum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>M-10</td>
<td>4.40 bags</td>
</tr>
<tr>
<td>2</td>
<td>M-15</td>
<td>6.27 bags</td>
</tr>
<tr>
<td>3</td>
<td>M-20</td>
<td>7.10 bags</td>
</tr>
<tr>
<td>4</td>
<td>M-25</td>
<td>7.50 bags</td>
</tr>
</tbody>
</table>

Note:
(i) The weight per bag of Cement is considered as 50 Kg.
(ii) If contractor desires to use any other type of cement, he should obtain permission from Engineer in charge. In the event he is permitted to do so, contractor should obtain mix design for the same from the laboratory approved by Engineer in charge. No payment will be made to contractor for obtaining the mix design. No extension will be given to contractor for the time lost in getting mix design.

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 grades of concrete M-20 and above 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 456-2000 (with latest amendments).

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 by P.W.D. laboratory or any other laboratory fully approved by Engineer in charge, 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 also shows the required strength.

If such Mix design 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 above table. 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 item for working out the cost towards adjustments in cement consumption the basic for cement shall be star rate as indicated in clause 54. 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. For all concrete items only trap metal shall be used.

37. **CONTRACTOR TO INFORM HIMSELF FULLY:**

The contractor shall be deemed to have carefully examined the work and site conditions including labours, the general and the special conditions, the specifications schedule and drawing and shall be deemed to have visited the site of the work and to have fully informed himself regarding the local conditions and carried out his own investigations to arrive at the rates quoted in the tender. In this regards he will be given necessary information to the best of the knowledge of Department but without any guarantee about it. If he shall have any doubt as to the meaning of any portion of these general conditions, or the special conditions to the scope of working of the specification and drawings, or any other matter concerning the contract, he shall in good time before submitting his tender set forth the particulars thereof 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, OMISSION & DISCREPANCIES:**

a) In case of errors, omissions and / or disagreement between written and scaled dimensions in the drawing or between the drawing and specifications etc., the following order of preference shall apply.

(i) Between actual scaled and written dimensions or description on a drawing the latter shall be adopted.

(ii) Between the written description or dimensions in the drawing and 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 preferred

b) In all cases of omissions and/or doubts or discrepancies in the dimensions or of any item or specification 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, steel, stones, bricks, aggregates, 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.

(ii) The contractor shall at his risk and cost make all arrangement and / or shall provide for all such facilities as the Engineer in charge may require for collecting, preparing and forwarding 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. Out of total number of tests as per frequency requirement 20 % of these tests shall be carried out in P.W. Department Laboratory.

(iii) The contractor shall if and when required submit at his cost the samples of materials to be tested or analysed and if so directed shall not make use or incorporate in the work any material represented by the samples until the required tests or analysis have been made after the test of the materials finally accepted by the Engineer-in-charge.

(iv) **Testing of Material:**

(1) Frequency of testing of the construction material and the percentage of the testing from the Government laboratory shall be as under:

(a) Where the field laboratory certified by the concerned Engineer in charge is established at the work site 70% test as per total frequency required shall be carried out in the said field laboratory and 30% tests shall be carried out at the Vigilance and Quality control laboratory of P.W.D. for the material not covered in the **Annexure I** 50% tests shall be carried out in the field laboratory and remaining 50% tests need to be carried out in the vigilance and quality control laboratory of P.W. D Maharashtra. The entire responsibility of the sample testing as per required frequency including testing charges will be borne by the agency.

(b) Where field laboratory is not established at the works site 100% tests as per frequency shall be carried out in the Vigilance and quality laboratory, Nagpur

(c) Testing of cement and steel 100% in Vigilance and quality laboratory, Nagpur is compulsory.

(d) It is mandatory to submit the test reports of materials/samples used for the work as per the frequency given in the specification with the bill. If the test results are not submitted along with the bill, amount equal to two times the prevailing VQC testing charges shall be deducted from the bill. Samples for the items for which testing is not done as per frequency shall be collected and submitted for testing by the engineer in charge or his representative for testing and testing charges for this sample shall be paid by engineer in charge through the amount deducted as above and balance amount shall be remitted to revenue. Till such results are received contractor shall be paid at part rate as decided by the Engineer in Charge.

(2) Mixing of concrete shall be done with concrete mixers

(3) The Contractor shall make field arrangements for testing of all materials for cement concrete i.e. slump test, bulkalge test, etc. The concrete cube mould 3 Nos. of 15cm x 15cm x 15 cm. size shall be kept at site during concreting operation. One set of six 15 cm. (about 6” cubes shall be prepared from the concrete to be used in work for compression test on the first three days operation an thereafter for every 60 cubic metre
of concrete of three days work whichever is less. If source of aggregate or grading is changed, one set of six test cubes shall be taken for each changed batch. Three cubes shall be tested for test at 7 days age and 3 at 28 days in Regional Testing Lab of P.W.D. at Nagpur. All the testing charges shall be paid by the contractor. The entire responsibilities of the testing of materials will be borne by the contractor.
(4) For providing Electric Wiring, Duct tubes of the required diameter and length shall be provided through walls, beams and floors, slabs as and when directed without any extra cost.

(5) 
(a) The contractor shall make his own arrangement for receiving all materials, tools, etc. required for the work.
(b) No extra charges for carriages of water will 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 items.
(d) A frequency of testing shall be as per relevant works specification. In case such frequency is not specified in the works specification then the IS code will be referred and for other cases where IS code do not stipulated the frequency of testing, it will be as directed by Engineer in charge and should be furnished in specified test abstract Annexure I
(e) The Contract should not be sublet without written permission of Executive Engineer.
(f) Tender condition of tender notice will be binding on contractor and etc tender notice will form a part of agreement.

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 guidelines as per I.S. 456-2000. It will be the responsibility of the contractor to obtain the mix design for various cement concrete grades at his cost from the P.W.D laboratory.

41. **MISCELLANEOUS** :

41.1 **ERASER** :
Person tendering are informed that no erasers or any alteration by them in the text of the documents set herewith will be allowed and any such eraser or 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 correction should be initialed and dated.

41.2 **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 above conditions or those in the form and which are incomplete in any respect shall be liable for rejection.

41.3 **COMPETENCY OF TENDERERS** :
The work will be awarded only to those contractors who are considered to be responsive 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 financial resources.
41.4 PRECAUTIONS TO BE TAKEN BY THE CONTRACTOR TO PREVENT ACCIDENT:

1) No live electric line should be allowed to run along the ground in the blasting zone and they should be at least 3 m above ground if not more.

2) The wiring cable should not be taken near the live electric line and it should be preferably shot firing cable as supplied by the supplier of explosives. If such a cable is not available a substitute cable made up of several pieces jointed and tapped should be used.

3) The blasting shed from where the exploder is to finally operate should be at least 150 m. away from the area to be blasted. It should have a strong roof, which can withstand the impact of flying stones at this range.

4) Only trained hands shall be allowed to handle explosive cable detonators etc.

41.5 POLICE PROTECTION:

For the police protection of the camp of the contractor’s 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 line and water line etc. recesses shall be provided. If necessary, through walls, slabs, beams, etc., and later on refilled it with a bricks or stones, chipping cement mortar without any extra cost.

41.7 In case it becomes necessary for the due fulfillment of the contractor for contractor to occupy land outside the department limits, the contractor will have to make his own arrangement with the land owners and pay such a rents, if any, which are payable as mutually agreed between them.

41.8 The contractor shall duly comply with the provisions of the Apprentices Act, 1961 (iii of 1961) and the rule 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 Rules.

41.9 It is presumed that the contractor has gone carefully through the standard specification (Vol. I & II 1981 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 contrary provisions (if any) in the standard specification given without reproducing the details in 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 MOST 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

1. In case of doubts regarding grade of concrete used either due to poor workmanship or based on results of cube strength tests, the load testing of any part of the structure will have to be carried out by the Contractor at his own cost.

2. Before carrying out load test, the Contractor shall carryout the suitable non destructive testing of the structure which are in doubt, at his own cost. Non destructive testing is fully optional and at the discretion of the Contractor.
3. In such cases the Engineer-in-Charge shall inform the Contractor sufficiently in advance in writing along with the reasons for carrying out the load test, during execution of work or during maintenance period of the Contract.

4. The load test will have to be carried out as per the provisions contained in IS : 456-2000.

5. If the load test results do not meet the requirements as stipulated in relevant I.S. code the structure shall be deemed to be unacceptable.

43. **SPECIAL CONDITIONS:**

43.1 The contractors should ensure that all safety precautions are observed by their labours, working closed to the State Highway and while closing the state Highvay precautions are taken including insurance etc., for their labour at the cost of the contractor etc. if any accident occur to the labour etc., no claim in this regard on whatsoever account shall be entertained and the 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.

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

44. **DEFINITIONS:**

(a) Government: Unless included by or repugnant to the contents the expression "Government" as used in the tender documents shall mean the Public Works Department of the Government of Maharashtra.

(b) Chief Engineer: The expression ‘The Chief Engineer’ as used in the tender papers shall mean Chief Engineer P.W .Region Nagpur

(c) Superintending Engineer: The expression ‘Superintending Engineer’ as used in the tender papers shall mean the officer of Superintending Engineer’s ranks (by whatever designation he may be known) under whose control the work lies for the time being.

(d) Engineer-in-charge: The expression Engineer or Engineer-in-charge as used in the tender paper shall mean the Engineer-in-charge of the work.

(e) Contractor: The expression ‘Contractor’ as used in the tender papers 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) Contract: 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.
Plant: 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.

45. **MIX DESIGN**:

45.1 The following instructions shall be followed as regards preliminary design of mix and 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.

<table>
<thead>
<tr>
<th>Concrete Grade</th>
<th>Guidelines</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Upto M-15</td>
<td>This should only be ordinary concrete. No change may be prescribed in the present practice as regards preliminary design of mix and permitting volume batching. Only cement to be weight batched.</td>
</tr>
<tr>
<td>2) M-20 to M-25</td>
<td>Preliminary mix design must be carried out for these mixes. However, weight batching shall be insisted for cement. only for concrete M-20 and above</td>
</tr>
<tr>
<td>3) M-25 and above</td>
<td>Preliminary mix design must be prepared for such mixes weigh batching shall be insisted for cement fine aggregate and course aggregate.</td>
</tr>
</tbody>
</table>

45.2 For the grades of concrete M-20 and above the preliminary mix design shall be carried out from the approved laboratory.

1) The charges for preliminary design, of concrete mix shall be entirely borne by the contractor.

2) 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.

3) For the items of concrete of grades lower than M-20 and other items in the agreement, where cement is not to be used by weightment, the cement bags as received from the manufacturer and supplied to the contractor under Schedule ‘A’ shall contain cement of 50 Kg. net weight.

45.3 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 payment on this account will be admissible.
ADDITIONAL TENDER CONDITIONS

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

(2) SUPPLY OF COLOUR RECORDS PHOTOGRAPHS AND ALBUM.

The Contractor shall arrange to take Color Photograph at various stage / facets of the work including interesting and novel features as desired by the Engineer in charge. Photographs shall be of and taken to the standard post card size marked in album of acceptable quality. Also the negative film in 35 mm size 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 & editing them to a video film of playing time not less than 60 minutes & upto 180 minutes as directed by Engineer in charge. It shall contain narration of the activities in English / Marathi by a competent narrator. Videocassette shall be of acceptable quality & film shall be capable of producing color picture. It shall be considered as incidental to the work and no additional payment whatsoever will be made for the same.

(3) 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 Executive Engineer and other details as directed by Engineer in charge. No extra payment is admissible on this account.

(4) Insurance of Contract Work :

Contractor shall take out necessary insurance Policy/Policies (viz Contractor’s 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 contract 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. Kalamagar, Bandra (E), Mumbai 400051 (Telephone Nos. 26590403 / 26590690 and Fax No. 26592461 / 26590403). Similarly all workmen’s appointed to completed 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 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 insures.
(5) A board 0.90 m x 0.60 m showing following information shall be provided by contractor at no extra cost to the Government.

(6) **Field Laboratory**: The contractor shall arrange to provide fully furnished and adequately equipped field laboratory with adequate qualified technical staff. Preferably to located adjacent to the site of Engineer-in-charge and provided amenities like water supply, electric supply etc. The laboratory equipment shall confirm I.S. specifications and MOST specifications.

It shall be considered as incidental to the work, and no extra payment will be made what so ever will not be made for the same.

**List of machineries to be provided at site laboratory as per Annexure – IV**

After completion of work laboratory equipments will be the property of the contractor. After completion of work, the contractor shall clean all site by dismantling site office / laboratory and by removing all the debris from the site of work.
SPECIAL CONDITIONS

(1) Construction Machinery / Equipments:

1.1 The methodology and equipments to be used on the project shall be furnished by the Contractor to the Engineer-In-Charge well in advance of commencement of work and approval of the Engineer-In-Charge 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-in-Charge before commencement of work, if so desired by the Engineer-In-Charge.

1.3 All equipments provided shall be of proven efficiency and shall be operated and maintained at all times in the manner acceptable to the Engineer-In-Charge.

1.4 No equipment or personnel shall be removed from the site without permission of the 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 item or work and obtain the approval of the Engineer-In-Charge to the revised programme, if necessary.

(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 up slippage within the stipulated time schedule and obtain the approval of the Engineer-in-charge to the revised programme.

(4) Action in case disproportionate progress:

In case of extremely poor progress of the work or any item at any stages of work which in the opinion of the Engineer-In-Charge can not be made good by the Contractor considering his available resources, the Engineer-In-Charge 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 about the action envisaged by him.

(5) The responsibility of assuring the quality of work shall be on the contractor who shall take actions as stipulated in standard specification as per “Schedule C”.

(6) Labour License: It shall be obligatory on the part of the contractor to obtain the necessary labour License from the labour Department within fortnight of issue of work order.

(7) Setting out: Setting out the works as spelt out in clause 109 of Ministry's specifications for Road and Bridge works (2nd Revision) will be carried out by the Contractor.

(8) Public Utilities: Action in respect of public utilities will be taken by the Contractor as envisaged in Clause 110 of Ministry's Specifications for Road and Bridge work (2nd Revision).

(9) 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 MORTH Specification for Road and Bridge Work (2001)

(10) It shall be responsibility of the contractor to achieve quality of work as stipulated in section 900 of MORTH Specification for Road and Bridge Work (2001)

(11) MORTH Specification for Road and Bridges Work latest edition with all amendments:

MORTH Specification for Road and Bridge Work (2001) shall form part of the contract documents and the contractors shall be legally bound to the various provisions made therein unless and otherwise specifically relaxed or waived wholly or partly by any special clauses in the contract documents.
(12) Applicable in case of Road works only.

The details of the paver, specified in the clause 504.3.5 will be relaxed in the case of bituminous macadam (clause 504) where it is going to be covered by any wearing course other than semi-dense Bituminous Concrete (Clause 501) / Bituminous Concrete (clause 512) or by a base course of Dense Bituminous Macadam (clause 507) 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 sections.

(13) Special Condition for B.T. work:

In respect of Black Top Work, 15% (Fifteen.) payment of Black Top 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.

(14) The contractor has to ensure that the hot mix temperature is within the specified range as per MOST specification at the time of laying of hot mix.

(15) The location of the hot mix plant to be used for the work shall not more than 60 Kms from the farthest point of work, measured along motorable road.

(16) (a) The aggregate required for the item of Hot Mix shall be screened in "mechanical Vibratory Screening Unit" so as to comply with the grading requirement as specified in MORT&H specification and then only shall be fed to the Hot Mix Plant for heating and mixing. The Mechanical Vibratory screening unit shall consist of main input hopper to receive raw metal, conveyer belt to transport it to the “Mechanical Vibratory Screening Unit.” The Mechanical Vibratory screening unit shall have required number of trays, sieves/decks as directed by Engineer In charge. The output of Mechanical Vibratory Screening unit shall be conveyed to the “storage unit /feeder”. The metal so supplied from the “Mechanical Vibratory Screening unit” at site shall not exempt the contractor from carrying out tests as specified in the specifications.

(b) However if the mechanical Vibratory Screening unit is installed at quarry site, the contractor shall provide Vehicle Tracking System for all vehicles used for the particular work of PWD. The contractor shall provide web application that will show all vehicles of the contractor on a GIS map along with the hot mix plant. The contractor shall also provide software that will update the entire mapping on the PWD’s e-governance works management system. The system of complete management of VTS for monitoring by the PWD staff shall have to be provided by Contractor at his own cost.

(c) The above condition of installation of Mechanical vibratory screening unit shall be exempted only, if the contractor uses the batch mix plant (Min 120 TPH) with SCADA base e- monitoring system.

(17) For Grade –I / Grade-II / Grade –III / WBM and BUSG work metal shall be supplied at site only after screening it on “mechanical vibratory screening unit”. The special “mechanical vibratory screening unit” arrangement shall consist of main input hopper to receive raw metal, conveyer belt to transport it to the “mechanical vibratory screening unit”. The “mechanical vibratory screening unit” shall have required number of trays, sieves/decks as directed by the Engineering in charge. The output of “mechanical vibratory screening unit” shall be conveyed to "storage Unit" where metal of different sizes, shall be stored separately.

Metal so supplied shall undergo all the tests as per the specifications.

As a input to the main input hopper, contractor may use hand broken metal or output of primary crusher of size not less than 24”x18”

The metal so supplied from the “mechanical Vibratory screening unit” at site shall not exempt the contractor from carrying out tests as specified in the specifications.
ADDITIONAL SPECIFICATION

(1) For Earthwork, Drain work, and Road work Contractor shall engage an experienced survey agency in consultation with Engineer-in-charge with all necessary modern instruments, equipments, tools etc. The Agency shall help departmental Engineers in carrying out survey work, collection of data plotting of "L" section, Cross section, Road plan, drainage plan, estimation of quantities etc. before start of the road work. If required and as directed by Engineers-in-charge, surveying, plotting, estimation etc. shall be done again and again for whole or part portion of the work till final solution to the satisfaction of the Engineers-in-charge is worked out. Contractor shall submit all surveyed data, plotting, plans & estimate in sort as-well-as in hard copy to the department. All submission in soft & hard copies shall be departmental property, under intellectual property rights. Contractor can not put any claims over it.
**SCHEDULE ‘A’**

**STATEMENT SHOWING (APPROXIMATELY) THE MATERIAL TO BE SUPPLYING TO THE CONTRACTOR FROM DEPT. STORES AND RATES AT WHICH THE MATERIALS ARE TO BE SUPPLIED**

**NAME OF WORK:** ST BT to District Border to Ismailpur Vadvihira Mendhala Wadhona Ramathi Armbhi Kharala Loharisawanga to Join SH way 323 Road (MDR 72) Km 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Material</th>
<th>Approximate Quantity to be stipulated</th>
<th>Unit</th>
<th>Rate at which the material will be charged to Contractor</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>In Figures</td>
<td>In words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

......................................................Nil......................................................
### SCHEDULE ‘A1’

**STATEMENT SHOWING (APPROXIMATELY) QUANTITY TO BE BROUGHT BY THE CONTRACTOR AT HIS OWN COST FOR THE WORK**

**NAME OF WORK:** ST BT to District Border to Ismailpur Vadvihira Mendhala Wadhona Ramathi Armbhi Kharala Loharisawanga to Join SH way 323 Road (MDR 72) Km 4/00 to 7/00 in Narkhed Taluka and Dist Nagpur

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Material</th>
<th>Approximate Quantity to be stipulated</th>
<th>unit</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1       | Bitumen VG-30 Grade | 68.374 MT | One Metric Tonne | 1) All the materials are to be procured and brought by the contractor at the site at his own risk and cost.  
2) Physical properties shall be confirmed with M.O.S.T./I.S./I.R.C specification.  
3) Stipulated test shall be carried out by the contractor at his own cost as per the frequency.  
4) Custody of material shall be sole responsibility of the contractor.  
5) The proof of purchase of all materials should be produced during the execution of work and along with bill  
6) The grade of cement shall be got approved from the Engineer – in-Charge |
| 2       | Bitumen VG-10 Grade | 9.07 MT | One Metric Tonne |
| 3       | Cement            | 47.46 MT | One Metric Tonne |
| 4       | Steel TMT         | 6.80 MT | One Metric Tonne |
CONDITIONS FOR THE MATERIALS TO BE PROCURED BY THE CONTRACTOR

(1) Cement :

Cement to be used for the work shall comply the following and shall be used with the prior approval of Engineer – in – charge

(a) Ordinary Portland cement confirming to the I.S.: 8112 shall be used. 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 that shown in the manufactures 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 be 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 a manner as to avoid deterioration and 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 is 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.

(2) Mild Steel / H.Y.S.D. / T.M.T. Steel

High Yield Strength Cold Twisted deformed bars / TMT bars shall comply with IS: 1786 and “Mild Steel” bars shall comply with IS: 432.

All reinforcement shall be free from rust loose mill scale or coats of Oil, Paints etc. Which may destroy bond and protected by anti corrosive treatment before placing in position for concreting.

The agency should use the steel manufactured by the Main Producers only. No re-rolled steel shall be permitted to be used for this work. Decision about the main producers of the steel will be given by Engineer in charge and his decision shall be final & binding on all parties.

(3) Bulk / Packed Bitumen :

(1) 60/70 grade (VG-30) or 80/100 (VG-10) of bitumen as specified in respective items shall only be used.

(2) Bitumen brought on site shall confirm to the requirement of the pertinent grade in I.S. 73 – 1992. (With latest Amendments)

(3) Testing has to be arranged by the contractor from limiting laboratory at his own cost for all tests mentioned in I.S. 73 – 1992. (With latest Amendments)

(4) The material brought by the agency will be open to check by Executive Engineer or his representative at all times. The agency shall draw the D.D. on the refinery on account of Executive Engineer. He shall submit bill from the refinery itself only. No. Other bill than refinery unit will be accepted by department and no claim of contractor will be admissible. For other activities, like storage, weighments, specification number RD 42, Page 216 referred. Contractor has to arrange static tanks for storage of bulk bitumen. If it is decided to procure bulk bitumen contractor shall intimate Engineer in charge well in advance. Consignment will not be allowed to unload until its weight is checked on Weigh Bridge by department persons. Bitumen shall be procured from Govt. Refinery only.
Rejection of Materials not conforming to specification:

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

Materials not corresponding in character and quality with approved samples will be rejected by the Engineer-in-charge or his representative and shall be removed from the site at the end of working season will not be allowed to use for any component of work in the next seasons.
ADDITIONAL CONDITIONS FOR CEMENT, STEEL, BITUMEN BROUGHT BY THE CONTRACTOR

1) All the materials required for construction of 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 and 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 at his own cost and the test results of samples shall be supplied to the Department. The material not confirming 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) All the testing charges for mix design etc. If necessary on construction work shall be borne by the contractor.

6) 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.

7) The contractor shall make his own arrangement for the safe custody of the materials which are brought for construction of work.

8) The contractor shall not transfer any material once brought at work site without prior written permission from Engineer-in-charge and for bonafied reasons only.

9) 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.

10) The charge for conveyance of materials from the place of delivery to the site of work and the actual sport on work site shall be entirely borne by the contractor. No claims on his account shall be entertained.

11) The contractor shall furnish the account of cement, steel, 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 materials used by him to the Department. This account will be verified by the Engineer-in-charge.

12) All empty cement bags or empty asphalt drums shall be the property of contractor and the same shall be removed immediately after completion of work.

13) The contractor shall procure the pipes if required for this work from M.S.S.I.D.C. only. Proof of purchasing of pipe should be submitted.

14) Agency shall ensure that the laying temperature of hot mix material shall be as specified and accordingly he shall make arrangements for preventing loss of temperature of hot mix material during transit from location of drum mix plant to work site.
ADDITIONAL CONDITIONS FOR SUPPLY OF BITUMEN

1) The contractor shall use Bulk Bitumen VG-30 (60/70 Grade) VG-10 (80-100) grade received from the Refinery at Mumbai for the Hot mix treatment only. Bulk Asphalt received as above will be entirely consumed at Hot mix plant site.

2) Conveyance charges of Bulk Bitumen VG-30 (60/70 Grade) VG-10 (80-100) Grade(including loading / unloading etc.) from 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, on account of all the material 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 material-asphalt shall be made available on working days only during working hours. Bulk Asphalt will be delivered as per the rules of the concerned refinery. The contractors are expected to know all the rules and regulations framed by the refineries in this behalf.

6) Asphalt shall be obtained specified in Schedule ‘A’ only Materials from other source in lieu of the materials in Schedule ‘A’ shall not be allowed except under written permission of the Executive Engineer.

7) Government does not undertake to take from the contractors whether before or after completion of determination of the contract, surplus material which were originally issued to them and charged to their accounts. Such material however, remains the property of the Department and can be taken over by the Department, if required for use on other works in progress only specials arrangement and the prevailing market rate or the rates stipulated in Schedule ‘A’ excluding the element of storage charges of the issue rate of Division excluding the element of storage charges which is lowest.

8) The Contractor shall furnish unstamped receipted of the materials issued under Schedule ‘A’ on the spot in addition to the joint signature on such challans, charts, registers, as may be prescribed by the Engineer-in-charge.

9) In the event of the material issued to the contractor by the Department becoming surplus, to the requirement of works and not returned to the Department (inspite of instructions to return the surplus materials from the Department) recovery at penal rate i.e. the double the rate stipulated in Schedule ‘A’ shall be made from the contractor.

10) Delay in supply of material included in schedule ‘A’ shall not entitle the contractor to claim any compensation. The contractor will however, will be eligible fir extension of time limit on this account.

11) In the event of Asphalt consumed being more than the quantity required as per specifications, recovery at penal rate i.e. double the rate stipulated in Schedule ‘A’ will be made from the Contractor for the excess quantity of Asphalt consumed.

12) The Contractor should note that the bouzars when received from Mumbai are always unloaded at the plant in the presence of the Jr. Engineer / other representative of the Deptt. 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 the arrangement to depute the Jr.Engr. / Representative at the plant site can be made.

13) Since the work lies in busy area the contractor shall have to make adequate arrangement for regulating the traffic by providing barricading whenever necessary and by displaying adequate number of requisite sign, an caution board etc. The work shall have to the planned properly to avoid any inconvenience to the traffic.

14) A register shall be maintained on site regarding daily item wise bitumen consumption of the works (giving details of each item) 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.

15) Contractor Should Submitted Voucher of Purchasing Asphalt.
DECLARATION

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

I hereby undertake to pay the labourers engaged on the work as per Minimum Wages Act. 1948 applicable to the zone concerned.

CONTRACTOR’S SIGNATURE
## Annexure - I

### Quality Control Tests & Their Frequencies

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>Material</th>
<th>Test</th>
<th>Frequency of Testing</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Sand</td>
<td>i) Fineness Modules</td>
<td>At the beginning &amp; if there is change in source</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>ii) Silt Content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Metal</td>
<td>i) Crushing Value</td>
<td>One test per 200 Cum or part hereof</td>
<td>P.W.D. hand book I.S.2386 Part –IV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Impact Value</td>
<td></td>
<td></td>
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<td></td>
<td>iii) Abrasion Value</td>
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<td></td>
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<td>iv) Water Absorption</td>
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<td></td>
<td></td>
<td>v) Flakiness Index</td>
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<tr>
<td></td>
<td></td>
<td>vi) Stripping value</td>
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<td></td>
<td></td>
<td>vii) Gradation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Cement</td>
<td>Compressive Strength</td>
<td>Upto 5 Cum – 1 set</td>
<td>M.O.R.T.&amp; H. Specification. 1717 (Fifth revision Table No. 1700-9)</td>
</tr>
<tr>
<td></td>
<td>Concrete</td>
<td></td>
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</tr>
<tr>
<td>4</td>
<td>Cement</td>
<td>i) Compressive Strength</td>
<td>One test for each consignment of 50 MT (1000 bags) or part thereof.</td>
<td>I.S. 8112 – 1989</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Initial Setting Time</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>iii) Final Setting Time</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>iv) Specific Gravity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Course</td>
<td>i) Test Description</td>
<td>Frequency</td>
<td>Reference</td>
</tr>
<tr>
<td>-----</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------------------</td>
<td>----------------------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>Steel</td>
<td>Weight per meter</td>
<td>One test for every 5.0 M.T. or part thereof for each diameter.</td>
<td>I.S. 432 IS 1786-1985</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ultimate Tensile Stress</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Yield Stress</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Elongation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Granular Sub-Base</td>
<td>Gradation</td>
<td>One test per 400 cum</td>
<td>MORT&amp;H specification Table 900-3 (Fifty Revision 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atterberg limits</td>
<td>One test per 400 cum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Moisture content prior to compaction</td>
<td>One test per 400 cum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Density and compacted layer</td>
<td>One test per 1000 Sqm</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>CBR</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Water Bound Macadam</td>
<td>Aggregate impact value</td>
<td>One test per 200 cum</td>
<td>MORT&amp;H specification Table 900-3 (Fourth Revision 2001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gradation</td>
<td>One test per 100 cum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flakiness index &amp; Elongation index</td>
<td>One test per 200 cum</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atterberg limits of binding material</td>
<td>One test per 25 cum of binding material.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atterberg limits of portion of aggregates passing 425 micron</td>
<td>One test per 100 cum of aggregate</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Wet Mix Macadam</td>
<td>Aggregate impact value</td>
<td>One test per 1000 cum of aggregates.</td>
<td>MORT&amp;H specification Table 900-3 (Fifth Revision 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Grading of aggregates</td>
<td>One test per 200 cum of aggregates.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Combined Flakiness &amp; Elongation indices</td>
<td>One test per 500 cum of aggregates.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Atterberg limits of portion of aggregate passing 425 micron sieve</td>
<td>One test per 200 cum of aggregates.</td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>Application Type</td>
<td>Test Details</td>
<td>No. of Tests</td>
<td>Specification Details</td>
</tr>
<tr>
<td>-----</td>
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<td>----------------------</td>
</tr>
<tr>
<td>9</td>
<td>Prime coat / tack coat / for spray</td>
<td>i) Quality of Binder</td>
<td>No. of samples per lot and tests as per I.S. 73 I.S. 217 and I.S. 8887 as applicable.</td>
<td>MORT&amp;H specification Table 900-3 (Fifth Revision 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Binder Temperature</td>
<td>At regular close intervals,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii) Rate of spread of binder.</td>
<td>Three tests per day</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Seal coat/ Surface Dressing</td>
<td>i) Quality of Binder</td>
<td>Same as mentioned under Sr.No.9</td>
<td>MORT&amp;H specification Table 900-3 (Fifth Revision 2013)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Impact Value / Los Angle’s Abrasion value</td>
<td>1 test per 200 cum of aggregate.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii) Flakiness &amp; Elongation Index</td>
<td>1 test per 100 cum.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv) Stripping value of aggregate (Immersion tray test)</td>
<td>Initially 1 set of 3 representative specimens for each source of supply subsequently whenever there is change in the quality of aggregates.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>v) Water Absorption</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>vi) Water sensitivity of mix (if required)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>vii) Gradation.</td>
<td>2 tests per day</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>viii) Soundness.</td>
<td>One test for each source of supply, subsequently whenever there is change in the quality of aggregates.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ix) Temp. of binder</td>
<td>At regular intervals,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>x) Rate of spread of materials</td>
<td>3 tests per day</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Open graded premix surfacing/ Close graded premix surfacing</td>
<td>i) Quality of Binder</td>
<td>Same as per Sr.No.9</td>
<td>MORT&amp;H specification Table 900.4 (Fourth Revision 2001)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ii) Impact / Abrasion value</td>
<td>Same as per Sr.No.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iii) Flakiness &amp; Elongation Index</td>
<td>Same as per Sr.No.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>iv) Stripping value</td>
<td>Same as per Sr.No.10</td>
<td></td>
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<tr>
<td>No.</td>
<td>Description</td>
<td>Details</td>
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<td></td>
</tr>
<tr>
<td>vi)</td>
<td>Water sensitivity of mix</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii)</td>
<td>Gradation</td>
<td>Same as per Sr.No.10</td>
<td></td>
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<tr>
<td>viii)</td>
<td>Soundness</td>
<td>Same as per Sr.No.10</td>
<td></td>
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<tr>
<td>ix)</td>
<td>Temp. of binder</td>
<td>At regular close intervals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x)</td>
<td>Binder content</td>
<td>2 tests per plant</td>
<td></td>
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</tr>
<tr>
<td>12</td>
<td>Bituminous Macadam/ BM</td>
<td>i) Quality of binder</td>
<td>MORT&amp;H specification Table 900-3 (Fifth Revision 2013)</td>
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<tr>
<td></td>
<td></td>
<td>Same as per Sr.No.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ii) Impact / Abrasion Value</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>iii) Flakiness and Elongation Indices</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>iv) Stripping value</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>v)</td>
<td>Water Sensitivity of mix</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
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<tr>
<td>vi)</td>
<td>Water absorption</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii)</td>
<td>Soundness</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii)</td>
<td>Percentage of fractural faces</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix)</td>
<td>Gradation</td>
<td>Same as per Sr.No.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x)</td>
<td>Binder content and agg. Grading</td>
<td>Same as per Sr.No.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xi)</td>
<td>Control of temperature of binder and aggregate</td>
<td>At regular intervals</td>
<td></td>
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<tr>
<td></td>
<td>for mix and of the mix at the time of laying and rolling</td>
<td></td>
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<tr>
<td>xii)</td>
<td>Rate of spread of Mixed Material</td>
<td>At regular intervals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xiii)</td>
<td>Density of compacted layer</td>
<td>One test per 700 Sqm</td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>Dense Bituminous Macadam / Bituminous Concrete</td>
<td>i) Quality of binder</td>
<td>MORT&amp;H specification Table 900-3 (Fifth Revision 2013)</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Number of samples as per IS:73 or IRC:SP:53, IS:15462</td>
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<td></td>
<td>ii) Impact / Abrasion Value</td>
<td>One test per 350 cu.m of aggreg each source and whenever there in the quality of aggregate</td>
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<tr>
<td>No.</td>
<td>Item</td>
<td>Details</td>
<td></td>
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</tr>
<tr>
<td>iv)</td>
<td>Soundness</td>
<td>One test for each source and whenever there is change in the quality of aggregates.</td>
<td></td>
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<tr>
<td>v)</td>
<td>Water absorption</td>
<td>— do —</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vi)</td>
<td>Sand equivalent test</td>
<td>— do —</td>
<td></td>
<td></td>
</tr>
<tr>
<td>vii)</td>
<td>Plasticity Index</td>
<td>— do —</td>
<td></td>
<td></td>
</tr>
<tr>
<td>viii)</td>
<td>Polished stone value</td>
<td>— do —</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ix)</td>
<td>Percentage of fractured face</td>
<td>One test per 350 cu.m of aggregate when crushed gravel is used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>x)</td>
<td>Mix grading</td>
<td>One set for individual constituent and mixed aggregate from dryer for each 400 tonnes of mix subject to minimum of two tests per day per plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xi)</td>
<td>Stability and voids analysis of mix</td>
<td>Three tests for stability, flow value, density and void contents for each 400 tonnes of mix subject to minimum of two tests per day per plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xii)</td>
<td>Temperature of binder in boiler, aggregate in dryer and mix at the time of laying and compaction</td>
<td>At regular intervals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xiii)</td>
<td>Binder content</td>
<td>One set for each 400 tonnes of mix subject to minimum of two tests per day per plant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>xiv)</td>
<td>Density of Compacted layer</td>
<td>One test per 700 sq.m area</td>
<td></td>
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</tr>
</tbody>
</table>

| 14  | Bitumen                                  | 2 test per lot as per I.S. 73                                          |
| 15 | Chequered Tiles | i) Water absorption  
ii) Transverse strength | Shall not exceed 10%. The average width transverse strength shall not be less than 30 Kg/cm² | 6th Tile shall be tested per every 2000 tiles or part thereof. |
ANNEXURE – II

Setting of Field Laboratory

The Contractor shall have to establish a field laboratory with following minimum equipments on the instant work at his own cost. These instruments are conforming to IS Specifications duly calibrated from competent agency. Contractor has to carry out the calibration of said instruments as directed by the Engineer – in- charge on expiry date of calibration. On completion of work in all respect, the equipments will be the sole property of the contractor.

1) Hydraulic Compression Testing Machine, hand operated 100 tonnes Capacity. Conform to the requirements of IS 516-1959,IS:4858-2000 1 Nos
2) Cube Moulds 150 mm x 150 mm x 150 mm size conforming to IS: 516-1959, IS:10086-1982 1 set of 12 Nos
   Cube Moulds 75 mm x 75 mm x 75 mm 1 set of 6 Nos.
3) Slump apparatus conforming to IS:7320 1 No
4) Test sieves of 100mm, 80mm, 63 mm , 50 mm, 25 mm, 12.5 mm, 10 mm , 4.75 mm , 2.36 mm , 1.18 mm, 600 micron, 300 micron , 90 micron, 150 micron and other required sieves. 2 sets
5) 15 cm dia aggregate crushing value apparatus as per IS:2386 (Part IV)-1963 1 No
6) Impact testing machine with cylinder of 75 mm dia and 50 mm depth And tamping rod of 10 mm dia and 230 mm long. 1 No
7) Pycnometer with metal mould and dryer 1 No
8) Le –chatelier apparatus as per IS:4031with glass sheets 1 No
9) Vicat apparatus as per IS:4031 1 No
10) Vibration machine with 6 moulds as per IS:4031 1 No
11) Graduated cylinder of glass 100,250,500 and 1000 ml capacity 3 Nos each.
12) Electric oven , thermostatically controlled upto 200 °c , chamber Space 40 cm x40cm x40cm 1 No
13) Concrete Test Hammer (rebound hammer) of impact energy 2.207 Nm (0.225 Kgm) as per IS:1331(part -2)-1992 1 No
14) Balance 1 kg , 5 kg and 15 kg capacity having sensivity less Than 0.1 gms. 1 No each
15) Miscellaneous items such as mixing trays, rice trays, rice trays Karni, hot plate, etc. 1 No each
16) Thickness and length guage as per I.S. : 2386 (Part I)-1983 1 No each
17) Bitumen extraction machine 1 No
18) Density appraties by sand replacement method 1 No.
19) Sieves as per MOST for various bitumen activities 1 Set for each
<table>
<thead>
<tr>
<th>Contractor</th>
<th>No. of Corrections</th>
<th>Executive Engineer</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
**SPECIFICATIONS FOR MODIFIED PENETRATION MACADAM**

**Item**: Providing and constructing 50 mm thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40 mm stone metal layers 30% crusher broken metal + 70% Hand broken (by breaking rubble obtained by blasting) heating and spraying the bitumen of VG-30 grade @ 1.75 kg/sqm, spreading 12 mm size chips compacting with three wheel static roller having weight 8 to 10 MT to achieve the desired degree of compaction as per Technical Specification Clause 506, including picking of existing WBM surface etc. complete.

1. **General**: The work consists of supply of all materials and labour required for providing and laying Modified Penetration Macadam surface for compacted thickness of 50/75 mm. The item includes preparing the existing road surface to receive the modified penetration macadam course, spreading of 40 mm size hand broken metal laying in required thickness with compacted with static roller, heating and spraying bitumen with equipment plant etc. spreading key aggregates, 12 mm chips and final compaction with static roller etc. complete. The work shall be finished in accordance with the requirement of this specification and in close conformity with grades, lines, cross sections and thickness as per approved drawings or as directed by the Engineer in charge.

2. **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 according to size and quality of aggregate and grade and quantities of bitumen:

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate of application for 10 Sqmt.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75 mm</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>a) 40 mm size hand broken metal</td>
<td>0.90 Cum</td>
</tr>
<tr>
<td>b) 12 mm size chips</td>
<td>0.18 Cum</td>
</tr>
</tbody>
</table>

   **Note**: Hand broken metal is preferred. However upto 30% of total quality of 40 mm size metal, 40 mm crusher broken metal can be used.

   (B) **Bitumen**: The bitumen shall be paving bitumen suitable penetration grade within the range S 65 i.e. 60/70 as per Indian Standard Specification for ‘Paving Bitumen’ IS : 73-1992.

<table>
<thead>
<tr>
<th>Description</th>
<th>Rate of application for 10 Sqmt.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75 mm</td>
</tr>
<tr>
<td>------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>a) Bitumen for grouting</td>
<td>20 Kg</td>
</tr>
<tr>
<td>b) Tack coat for existing bituminous surface.</td>
<td>5 Kg</td>
</tr>
</tbody>
</table>

Contractor: [Name]
No. of Corrections: [Number]
Executive Engineer: [Name]
<table>
<thead>
<tr>
<th>Contractor</th>
<th>No. of Corrections</th>
<th>Executive Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>
4. **Preparing the base**: 

Any pothole 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 limiting. Existing water bound macadam surface shall be picked for and surface loosened for a depth 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 M.P.M. surface for receiving modified penetration macadam as per Rd 33.

7. **Spreading and Compaction**:

7.1 : **Spreading of 40 mm metal** - 40 mm metal shall be spreaded only at the specified rate of 9 cubic metric / 6 cubic metre per 100 sqm of area so as to form a layer over the width of road 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 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 40 mm size metal** - The surface of 40 mm metal layer after bringing it to necessary grades and sections shall be rolled with the sue of 8 to 10 tonnes power roller. Rolling shall commence from the edges and progress towards centre longitudinally except on super elevated portion it shall progress from the lower to upper edge parallel to the centre line of pavement. When the roller has passed over the whole area any high spots or depressions, which become apparent, shall be corrected by removing or adding aggregates. The rolling shall then be continued till the entire surface has been rolled to desired compaction such that there is no crashing 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 60/70 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 sprayer on the road surface uniformly at the rate of 200 Kg / 100 Sqmt. 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 aggregate shall be spread immediately at a uniform rate of 1.8 cubic meter / 1.2 cubic meter per 100 square meter of area when entire surface is in hot condition. Brooms shall be used to ensure even distribution of key aggregate.
10. **Final Compaction**: Immediately after spraying of bitumen and spreading of key aggregate, the surface shall be rolled with a power roller to obtain full compaction and to force the bindage of key aggregates into the interstices of the coarse aggregate. The rolling shall continue till the asphalt surface hardens and key aggregates stop moving under poser roller.

11) **Surface finish and quality control**: The surface finish shall conform to requirements of clause 902 of specifications for Road and bridges by Ministry of Surface Transport (copy enclosed) Quality Control Test and their frequencies shall be as per table below:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Test</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Quality of binder</td>
<td>Two samples per lot to be subjected to all or some test as directed by the Engineer</td>
</tr>
<tr>
<td>2</td>
<td>Aggregate Impact Value</td>
<td>One test per 200 cubic meter of aggregate.</td>
</tr>
<tr>
<td>3</td>
<td>Flankiness Index and Elongation Index</td>
<td>One test per 200 cubic meter of aggregate.</td>
</tr>
<tr>
<td>4</td>
<td>Stripping value</td>
<td>Initially one set of three representative specimen for each source of supply subsequently when warranted by changes in the quality of aggregate.</td>
</tr>
<tr>
<td>5</td>
<td>Water absorption of aggregates</td>
<td>Initially one set of three representative specimen for each source of supply subsequently when warranted by changes in the quality of aggregate.</td>
</tr>
<tr>
<td>6</td>
<td>Aggregate grading</td>
<td>One test per 100 cubic meter of aggregate.</td>
</tr>
<tr>
<td>7</td>
<td>Temperature of binder at application</td>
<td>At regular close intervals.</td>
</tr>
<tr>
<td>8</td>
<td>Rate of spreading for binder</td>
<td>One test per 500 square meter of area.</td>
</tr>
</tbody>
</table>

12. **Items 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 aggregates supplying, heating and spraying bitumen and supplying, 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 to the width specified or as ordered by the Engineer and the length measured along the centerline. The measurement dimensions shall be recorded correct up to two places of decimals of a meter and the area worked out correct up to one place of decimal of a Sqmt.
## Annexure IV

### TESTING STATEMENT

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Items</th>
<th>Qty as per execution</th>
<th>Specified frequency</th>
<th>Required test as per frequency</th>
<th>Test actual taken at</th>
<th>Total test</th>
<th>Deficiency in testing</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Site office</td>
<td>Laboratory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>

Contractors Name: __________________________________________________________

Contractor: 105  No. of Corrections:  Executive Engineer:
ANNEXURE V
(On stamp paper of worth Rs 100/-)

MODEL FORM OF BANK GUARANTEE BOND

In consideration of the Governor of Maharashtra (hereinafter referred to as ‘THE GOVERNMENT’) having agreed to exempt (hereinafter referred to as ‘THE CONTRACT’) form depositing with the Government in cash, the sum of Rs. ______________(Rs.________ ________________ only) being the amount of security deposit payable by the contract to the Government under terms and conditions of the agreement dated the ______________ day of __________ and made between the Government on the one part and the contractor on the other part (hereinafter referred to as the “the observance and performance by the Government a Guarantee in the prescribed from a scheduled Bank in India being in fact these present in the like sum of Rs. ________________________________ (Rs._______________________________________). We _________________________ _________________ Bank / Limited registered in India under ______________________ Act and having one or our local head office at _____________________ do hereby –

   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, damage, costs, charges, penalties and expenses payable to the Government by the contractor under or in respect of the said agreement.

2. Under to pay to the Government on demanded and without demure and notwithstanding any court or tribunal relating there to the said sum of Rs. __________ (Rs.__________________________________only) or such less sum may be demanded by the Government from us our liability hereunder being absolute and unequivocal and agree that –
   (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 and 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 certifies that the terms and conditions of the said agreement have been fully properly carried out by contractor.

   (B) We shall not be discharged or released from the liability under this Government by reasons of –
      (i) Any change in the constitution of the Bank or the Contractor or,
      (ii) Any arrangement entered into between the Government and the Contractor with or without our consent.
(iii) Any forbearance or including shown to the Contractor.
(iv) Any variation in the terms covenants or conditions contained in the said agreement.
(v) Any time given to the contractor or –

(C) Our liabilities hereunder shall be joint and several with that of the contract as if we were the principal debtors in respect of the said sum of Rs. ______________
(Rs._________________________________________only.)

We shall not revoke this guarantee during its currency except with the previous consent in writing of the Government IN WITHNEES WHERE OF The Common Seal of ______________ has been here into affixed this day of ________________
The common seal of ________________________ was pursuant to the resolution to of the Board of Directors of the company dated the ___________ day of ______________ herein affixed in the presence of who in token have here to set their respective hands in the presence of –

(1) …...........................................................

(2) …...........................................................
Annexure –VI
Format of Undertaking for similar type work, quantity and Calculation of Bid Capacity

I, the undersigned do hereby undertake that our firm M/s ……………………………… submit the tender for the work of ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMBHI KHARALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR

1) For this tender we submit that a similar type work has been completed by us under ------------------(Name of the agency) during year ------------------. Work has been executed costing Rs -------------- (Certificate of Executive Engineer Enclosed in special condition template)

3.3.1.a.i.1.a.i. 安
For this tender we submit following statement for Executed quantity in continuous twelve calendar months

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Item of work</th>
<th>Division</th>
<th>Name of Work</th>
<th>Executed Quantity</th>
<th>Period of Execution</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BM 50/75 mm</td>
<td>1) 2) 3)</td>
<td>1) 2) 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dense Graded Bituminous Macadam</td>
<td>1) 2) 3)</td>
<td>1) 2) 3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bituminous Concrete</td>
<td>1) 2) 3)</td>
<td>1) 2) 3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Sample Statements, Forms for Required Documents
### STATEMENT No. I

DETAILS OF WORKS IN HAND AND WORKS TENDERED FOR AS ON DATE OF SUBMISSION OF BID

Name of the contractor:

**WORKS IN HAND**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Agreement No.</th>
<th>Tendered Amount (Rs. In Lakh)</th>
<th>Date of Commencement</th>
<th>Stipulated date of completion</th>
<th>Value of work already done (Rs. In Lakh)</th>
<th>Value of balance work to be executed (Rs. In Lakh)</th>
<th>Probable date of completion</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample Form**

For requirement of Documents

**Sr. No. 30 (iii)**

**WORKS TENDERED & TO BE AWARDED**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Name and address of client</th>
<th>Tendered amount (Rs. In Lakh)</th>
<th>Time Limit</th>
<th>Probable date when decision is expected</th>
<th>Other relevant details, if any</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample Form**

For requirement of Documents

**Sr. No. 30 (iii)**

This is only a standard form. Details are to be furnished in this format by tenderer with supporting documents.

Contractor  
No. of Corrections  
Executive Engineer
STATEMENT No. II
LIST OF PLANT AND MACHINERY READILY AVAILABLE WITH THE TENDERER FOR THIS WORK

Name of the contractor:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Equipment</th>
<th>No. of Units</th>
<th>Kind and make</th>
<th>Capacity</th>
<th>Age and Condition</th>
<th>Present Location</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sample Form
For requirement of Documents
Sr. No. 30 (IV)

Note: 1) This is only a standard form. Details are to be furnished in this format by tenderer with supporting documents.
2) List of machinery proposed to be utilized on this work but not immediately available and the manner which it is procured shall be given in above proforma in column No. 8.
STATEMENT No. III
DETAILS OF WORKS OF SIMILAR TYPE AND MAGNITUDE
CARRIED OUT BY THE CONTRACTOR

Name of the contractor :

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of work</th>
<th>Name and address of the organization for whom the work was done</th>
<th>Place and country</th>
<th>Agreement No.</th>
<th>Date of commencement</th>
<th>Tendered cost (Rs. In Lakh)</th>
<th>Total cost of work done (Rs. In Lakh)</th>
<th>Actual date of completion</th>
<th>(Principle features in brief)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Sample Form
For requirement of Documents
Sr. No. 30 (V)

Note : This is only a standard form. Details are to be furnished in this format in the form of type written statements which shall be enclosed in Envelop No. 1
STATEMENT No. IV
STATEMENT SHOWING TECHNICAL PERSONNEL AVAILABLE WITH TENDERER

Name of the contractor:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Designation</th>
<th>Name of Person</th>
<th>Qualification</th>
<th>Whether working in field or in office</th>
<th>Experience of execution of similar works</th>
<th>Period for which the person is working with the tenderer</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
</tbody>
</table>

Sample Form
For requirement of Documents
Sr. No. 30 (VI)

Note: This is only a standard form. Details are to be furnished in this format in the form of typewritten statement.
STATEMENT No. V

STATEMENT SHOWING WORK DONE IN ALL CLASSES OF CIVIL ENGINEERING
CONSTRUCTION WORKS DURING LAST THREE YEARS

Name of the contractor:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Work</th>
<th>Amount put to tender / Tendered cost</th>
<th>Agreement No.</th>
<th>Date of Commence ment</th>
<th>Amount of work done during each of last three years (Rs. In Lakh)</th>
<th>Amount of work still remaining to be executed (Rs. In Lakh)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Year before

One | Two | Three

1 2 3 4 5 6 7 8 9 10

Sample Form
For requirement of Documents
Sr. No. 30 (VII)

Total:

Name and No. and date of certificate issuing authority:

Note: This is only a standard form. Details are to be furnished in this format in the form of type written statement.
STATEMENT No. VI

STATEMENT SHOWING QUANTITIES OF WORK EXECUTED IN ANY CONTINUOUS TWELVE MONTHS DURING LAST THREE YEARS

Name of the contractor: ______________________________

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Quantity of Item of work executed</th>
<th>Remarks (Indicate Contract Reference)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample Form For requirement of Documents Sr. No. 30 (viii)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: This is only a standard form. The certificate of issuing authority with outward No. Details are to be furnished in this format by tenderer with supporting documents.
FORM – I

UNDERTAKING FOR DEPLOYMENT OF MACHINERY
(SELFF DECLARATION)
(TO BE SUBMITTED IN ENVELOPE NO. 1)
(Sample format of Documents Sr No 30 (ix)

NAME OF WORK :-
ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMBHI KHALALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR

I/We, have the required machinery (----Name the machinery to be owned) as stipulated in the relevant clause etc. owned by me / us which can be spare for this work immediately after awarding the work within a reasonable time. The documentary evidence of copies of retailed / commercial invoices in respect of the machineries are given in Envelop No. 1.

Applicant / Contractor Name …………………
Address …………………………………………
Email ………………………… Mobile No. …………
Website …………………………………………

Contractor No. of Corrections Executive Engineer
116
FORM – II
Self Declaration
(On plain paper)

Sample Format of Document Sr. No. 30(x)

Name of Work : ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMBHI KHARALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR

1. I the undersigned, do hereby certify that, all the documents and statements made in the required attachments are true and correct. In case the contents of envelope No. 1 and other documents pertaining to the tender authorize me are found to be incorrect or false, I shall be liable for prosecution and punishment under section 199 and 200 of IPC 1960and / or any other law applicable thereto.

2. The undersigned also hereby certifies that neither our firm M/s. _____________ _____________ have not abandoned any work in Public Work Department in Maharashtra nor any contract awarded to us for such works have not been rescinded, during last five years prior to the date of this bid.

3. The undersigned hereby authorize(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the department to verify this statement or regarding my (our) competence and general reputation.

4. The undersigned understand and agrees that further qualifying information may be requested and agrees to furnish any such information at the request of the department under relevant laws.

Applicant / Contractor Name ........
Address ........................................
E-mail .......................................... 
Mobile No. ....................................
Website ........................................

Contractor No. of Corrections Executive Engineer

116
NAME OF WORK: ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMBHI KHALARALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR

SCHEDULE “B”

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>ITEM OF WORK</th>
<th>QUANTITY</th>
<th>RATE IN FIG.</th>
<th>RATE IN WORDS</th>
<th>UNIT</th>
<th>AMOUNT (Rs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cleaning the site, removing bushes including removal of roots upto 20cm. circumference and disposal of above stuffs upto a lead of 10mtr. or as directed by Engineer-In-Charge.</td>
<td>9000.000</td>
<td>3.00</td>
<td>Rs. Three And Paise Nil Only.</td>
<td>One Square Metre</td>
<td>27000.000</td>
</tr>
<tr>
<td>2</td>
<td>Excavation for widening of metal strips from 3.0 m. to 5.5 m. width in all soils including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lift upto a lead of 50 m. and spreading for embankment or stacking etc. complete.</td>
<td>807.090</td>
<td>118.00</td>
<td>Rs. One Hundred Eighteen And Paise Nil Only.</td>
<td>One Cubic Metre</td>
<td>95237.000</td>
</tr>
<tr>
<td>3</td>
<td>Excavation for road way / gutter by mechanical means including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts and spreading for embankment or stacking etc. complete.</td>
<td>3240.000</td>
<td>69.00</td>
<td>Rs. Sixty Nine And Paise Nil Only.</td>
<td>One Cubic Metre</td>
<td>223560.000</td>
</tr>
<tr>
<td>4</td>
<td>Transportation of material obtained from debris of various sorts including necessary excavation/loosing including loading, unloading and conveying and disposing as directed.</td>
<td>823.060</td>
<td>79.05</td>
<td>Rs. Seventy Nine And Paise Five Only.</td>
<td>One Cubic Metre</td>
<td>65063.000</td>
</tr>
<tr>
<td>5</td>
<td>Compacting the earth work obtained from road cutting, excavation of road side drain by Static roller having weight 8 to 10 MT. and watering etc. Complete.</td>
<td>4047.090</td>
<td>12.00</td>
<td>Rs. Twelve And Paise Nil Only.</td>
<td>One Cubic Metre</td>
<td>48565.000</td>
</tr>
<tr>
<td>6</td>
<td>Scarifying flexible pavements to a depth of 50 mm and disposal of dismantled materials up to a lead upto 1000 metres, stacking serviceable and unserviceable materials separately, including compaction of sub base etc. complete. (A) By Manual means</td>
<td>262.500</td>
<td>32.00</td>
<td>Rs. Thirty Two And Paise Nil Only.</td>
<td>One Cubic Metre</td>
<td>8400.000</td>
</tr>
<tr>
<td>7</td>
<td>Providing &amp; laying granular sub-base as per table 400-1 including, spreading in uniform layers on prepared surface, mixing by mix in place method at OMC, and compacting with Vibratory power roller to achieve the 98% of maximum dry density so as to have CBR not less than 30, etc complete.</td>
<td>291.600</td>
<td>1337.10</td>
<td>Rs. One Thousand Three Hundred Thirty Seven And Paise Ten Only.</td>
<td>One Cubic Metre</td>
<td>389898.000</td>
</tr>
<tr>
<td>No.</td>
<td>Description</td>
<td>Rate 1</td>
<td>Rate 2</td>
<td>Rate 3</td>
<td>Unit</td>
<td>Price</td>
</tr>
<tr>
<td>-----</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>---------</td>
<td>--------------------------------------------</td>
<td>--------------------</td>
<td>----------</td>
</tr>
<tr>
<td>8</td>
<td>Providing, laying, spreading and compacting WBM with aggregates of specific grading including spreading in uniform thickness, hand packing, rolling with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening / material same as per course aggregates binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density as directed etc. complete. (Compacted thickness of each layer shall be 75 mm) For grade I material, using stone screening type B</td>
<td>187.740</td>
<td>2032.90</td>
<td>Rs. Two Thousand Thirty Two And Paise Ninety Only</td>
<td>One Cubic Metre</td>
<td>381657.00</td>
</tr>
<tr>
<td>9</td>
<td>Providing, laying, spreading and compacting WBM with aggregates of specific grading including spreading in uniform thickness, hand packing, rolling with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening / material same as per course aggregates binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density as directed etc. complete. (Compacted thickness of each layer shall be 75 mm) For grade II material, using stone screening type B</td>
<td>179.870</td>
<td>2077.90</td>
<td>Rs. Two Thousand Seventy Seven And Paise Ninety Only</td>
<td>One Cubic Metre</td>
<td>373752.00</td>
</tr>
<tr>
<td>10</td>
<td>Supplying murum having PI &lt; 6 at the road side, including conveying and stacking complete.</td>
<td>1570.660</td>
<td>847.75</td>
<td>Rs. Eight Hundred Forty Seven And Paise Seventy Five Only</td>
<td>One Cubic Metre</td>
<td>1331527.00</td>
</tr>
<tr>
<td>11</td>
<td>Spreading gravel / sand / soft murum / available murum over rubble soling / W.B.M. surface blanketing berms etc. complete.</td>
<td>1570.660</td>
<td>36.00</td>
<td>Rs. Thirty Six And Paise Nil Only</td>
<td>One Cubic Metre</td>
<td>56544.00</td>
</tr>
<tr>
<td>12</td>
<td>Compacting the hard murum side widths layer on each side with Static roller including necessary artificial watering etc. complete. By Static Roller Having Weight 8 to 10 MT.</td>
<td>11070.350</td>
<td>4.00</td>
<td>Rs. Four And Paise Nil Only</td>
<td>One Square Metre</td>
<td>44281.00</td>
</tr>
<tr>
<td>13</td>
<td>Providing &amp; applying Prime coat with Bitumen VG-10 grade on WBM / WMM of granular base, spraying bitumen @ 0.75 kg/sqm with the help of self propelled or towed bitumen pressure sprayer equipped with suitable nozzles to achieve uniform dose, including cleaning of road surface by power mechanical sweepers etc. complete.</td>
<td>1199.130</td>
<td>35.15</td>
<td>Rs. Thirty Five And Paise Fifteen Only</td>
<td>One Square Metre</td>
<td>42149.00</td>
</tr>
<tr>
<td>14</td>
<td>Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40mm. stone layers metal 30% crusher broken metal + 70% Hand broken metal (By breaking Rubble obtained by blasting), heating and spraying the bitumen of VG-30 @ 1.75 kg / sqm, spreading 12mm.size chips compacting with Static roller having weight 8 to 10 MT. to achieve the desired degree of compaction as per Technical Specification Clause 506 etc. complete, including applying tack coat at the rate of 0.30 Kg./ Sqm. (on existing bitumen surface.)</td>
<td>2923.130</td>
<td>201.75</td>
<td>Rs. Two Hundred One And Paise Seventy Five Only</td>
<td>One Square Metre</td>
<td>589741.00</td>
</tr>
</tbody>
</table>

118 Contractor | No. of Corrections | Executive Engineer
<table>
<thead>
<tr>
<th>Contractor No. of Corrections Executive Engineer</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Providing, laying and compacting of built-up-spray grout layer 75 mm thick over prepared base consisting of two layers composite construction of compacted crushed coarse aggregates with application of bituminous binder of VG-30 Grade @ 1.520 Kg/Smq after each layer, (i.e. 1.520x2=3.04 say 3.00 Kg/Sqm) and with key aggregates placed on top of the second layer and compacting with static roller 8 to 10 MT. Including cost of tack coat and scarifying etc. Complete.</td>
</tr>
<tr>
<td>16 Providing, laying and rolling open - graded premix surfacing (Hot Mix Hot Laid) of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates using bitumen of VG-30 grade @ 1.46kg./sqm.to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable drum mix plant, laying with paver finisher finisher and rolling with static roller of 8-10 MT , finished to required level and grades. Including tack coat of VG-10 grade Bitumen @ 0.30kg / sqm. etc complete. a) Drum mix plant with paver finisher without SCADA</td>
</tr>
<tr>
<td>17 Providing bituminous Type B Premix seal coat on bituminous surface, including supplying all materials &amp; bitumen of VG-30 grade @0.68 Kg/sqm , preparing existing road surface, heating bitumen including in suitable drum mix plant, mixing, laying with paver finisher and rolling by static roller having weight 8 to 10 MT. etc. complete. (Tack coat is not required.)</td>
</tr>
<tr>
<td>18 Providing and laying cement concrete pipe of I.S.458/2003 N.P. 2 class of required diameter in proper line, level and slope including providing, fixing collars or spigot and socket joint by rubber ring and in C.M.1:2 etc. complete.</td>
</tr>
<tr>
<td>i) 600 mm. NP II Class</td>
</tr>
<tr>
<td>ii) 8 00 mm. NP II Class</td>
</tr>
<tr>
<td>19 Providing and fixing R.C.C. 1:2:4 200 m. stone of size (15 X 10 X 65 cm ) as per I.R.C. design (IRC 26-1967) including cost of reinforcement @ 100 kg / cum), painting, numbering, fixing in standard size (35 X 30 X 40 cm ) C.C. 1:4:8 block etc complete.</td>
</tr>
<tr>
<td>20 Providing R.C.C. 1:2:4 5th Km. Stone on S.H. and M.D.R. etc. including cost of reinforcement @ 100 kg / cum), painting, numbering etc. complete as per IRC design (IRC 8-1980) for highway 5th km. Stones and fixing in standard size (55 X 80 X 60 cm ) C.C. 1:4:8 block etc complete.</td>
</tr>
<tr>
<td>21 Providing R.C.C 1:2:4 ordinary km. Stones including cost of reinforcement @ 100 kg / cum) painting numbering etc. complete for S.H. way and M.D.R. etc. as IRC design (IRC 8-1980) for highway ordinary and Single</td>
</tr>
</tbody>
</table>
Retro-Reflectorised Traffic Signs

Providing and fixing of retro-reflectorised cautionary, mandatory and informative signs as per IRC : 67-2012 made of High intensity micro Prismatic grade sheeting (Type IV) vide clause no. 801.3 .3 as per ASTM D 4956-09 specifications, fixed over 2.00 mm thick aluminium sheeting / 3mm to 4.00 mm thick ACP Sheetting Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint & supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt long firmly fixed to the ground by means of properly designed foundation with M20 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing. The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including GI fixtures and transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retro-reflective sheeting should be with seven years written warranty from the manufacturer & authorised distributor/convertor, for satisfactory field performance, durability & stipulated retro-reflectance of retro-reflective sheeting. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
<th>Rate</th>
<th>Amount</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>i) 90 cm equilateral triangle</td>
<td>12.000</td>
<td>3804.00</td>
<td>Rs. Three Thousand Eight Hundred Four And Paise Nil Only.</td>
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</tr>
<tr>
<td>ii) 60 cm equilateral triangle</td>
<td>2.000</td>
<td>2966.00</td>
<td>Rs. Two Thousand Nine Hundred Sixty Six And Paise Nil Only.</td>
<td></td>
</tr>
<tr>
<td>iii) 60 cm Circular</td>
<td>2.000</td>
<td>3515.00</td>
<td>Rs. Three Thousand Five Hundred Fifteen And Paise Nil Only.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Quantity</td>
<td>Rate (Rs)</td>
<td>Amount (Rs)</td>
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<tr>
<td>23</td>
<td>Direction and Place Identification signs upto 0.9 sqm size board. Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of High intensity micro Prismatic grade sheeting (Type IV) vide clause no. 801.3.3 as per ASTM D 4956-09 specifications, fixed over 2 mm thick aluminium sheeting / 3mm to 4.00 mm thick ACP Sheetin Supported with Back support frame of 35x35x5 mm mild steel angle with area not exceeding 0.9 sqm, duly painted on back side with two coats of grey stove enamel paint &amp; supported on a mild steel single angle iron post 75 x 75 x 6 mm, 3.5 m long firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 55 cm below ground level as per approved drawing The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including GI fixtures and transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retro-reflective sheeting should be with seven years written warranty from the manufacturer &amp; authorised distributor/convertor, for satisfactory field performance, durability &amp; stipulated retro-reflectance of retro-reflective sheeting. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</td>
<td>1.080</td>
<td>7402.00</td>
<td>Rs. Seven Thousand Four Hundred Two And Paise Nil Only.</td>
</tr>
<tr>
<td>24</td>
<td>Providing and fixing informatory sign boards in square or rectangular shape of any size made out 16 guage (1.6 mm) thick mild steel sheet painted with one coat of zinc chromate-stoveing primer and two coats green stove enamel paint on front side and grey stove enamel on back side and border / message / symbols etc. with cut out of High intensity micro Prismatic grade sheeting (Type IV) vide clause no 801.3.3 as per ASTM D 4956 specifications, fixed over 2.00 mm thick aluminium sheeting / 3mm to 4.00 mm thick ACP Sheetin Supported including M.S. angle frame of 35 mm x 35 mm x 3 mm and two M.S. angle iron post of size 65 mm x 65 mm x 6mm, 3.65 m long properly cross braced with angle iron of size 50 mm x 50 mm x 5 mm duly painted with alternate black and white bands of 25 cm width including G.I. fixtures etc. and fixing the board in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retroreflective sheeting should be with five years written warrenty from the manufacture &amp; authorised distributor/convertor, for satisfactory field retroreflectance of retroreflective sheeting, performance, durability &amp; stipulated. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</td>
<td>1.080</td>
<td>6614.00</td>
<td>Rs. Six Thousand Six Hundred Fourteen And Paise Nil Only.</td>
</tr>
<tr>
<td>25</td>
<td>Excavation for catch water gutter in all sort of soils, soft murum by manual means to the specified section including stacking the excavated stuff in regular bund and disposing off unsuitable or excess stuff upto a lead of 50 m and spreading etc. complete.</td>
<td>56.160</td>
<td>119.00</td>
<td>Rs. One Hundred Nineteen And Paise Nil Only.</td>
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<tr>
<td>26</td>
<td>Excavation for foundation in earth, soils of all types, sand, gravel soft murum etc. including shoring and strutting as necessary and disposing off excavated stuff within lead of 100 m as directed etc. complete. a) Lift upto 1.5 metre</td>
<td>432.000</td>
<td>171.00</td>
<td>Rs. One Hundred Seventy One And Paise Nil Only.</td>
</tr>
<tr>
<td>27</td>
<td>Providing soling using 80 mm size granite / quartzite / gneiss / trap metal in 15 cm. layer including hand packing filling voids with sand / grit, ramming, watering etc complete. ( Including Royalty)</td>
<td>72.000</td>
<td>1044.45</td>
<td>Rs. One Thousand Forty Four And Paise Forty Five Only.</td>
</tr>
<tr>
<td>28</td>
<td>Providing and laying in situ, cement concrete M-10/(1:3:6) of trap/granite/quartzite/gneiss metal for foundation and bedding including plywood/steel formwork bailing out water, compacting, finishing uneven and honeycombed surface, curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.)</td>
<td>42.000</td>
<td>4521.65</td>
<td>Rs. Four Thousand Five Hundred Twenty One And Paise Sixty Five Only.</td>
</tr>
<tr>
<td>29</td>
<td>Providing and laying in situ cement concrete of M-20 grade of trap / granite/ quartzite / gneiss metal for R.C.C. work in foundations like raft, grillages, strip foundations and footings of R.C.C. columns and steel stanchions including bailing out water, plywood/steel formwork, compaction, curing and roughening the surface if special finish is to be provided, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface etc. complete. (Excluding reinforcement and structural steel, including cover block) The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed.)</td>
<td>36.000</td>
<td>5699.65</td>
<td>Rs. Five Thousand Six Hundred Ninety Nine And Paise Sixty Five Only.</td>
</tr>
<tr>
<td>30</td>
<td>Providing and laying in situ cement concrete of M-15 / 1:2:4 with trap / granite / quartzite / gneiss metal in face wall/Sidewall of builtup drains including plywood/ steel formwork and steel centering, compaction by vibrator, finishing uneven and honeycombed surface with C.M.1:3 of sufficient minimum thickness to give smooth and even surface, filling joints with bitumen, curing etc. complete. (Excluding cost of reinforcement.) The C.M. 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering/formwork will not be allowed).</td>
<td>72.000</td>
<td>5355.15</td>
<td>Rs. Five Thousand Three Hundred Fifty Five And Paise Fifteen Only.</td>
</tr>
<tr>
<td>31</td>
<td>Providing PRECAST M-20 R.C.C. slabs over the spans of Cross Drainage work as per drawings including reinforcement, conveyance, fixing in C.M. 1:3 and curing, finishing complete.</td>
<td>8.100</td>
<td>8507.65</td>
<td>Rs. Eight Thousand Five Hundred Seven And Paise Sixty Five Only.</td>
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<tr>
<td>Sr. No.</td>
<td>ITEM OF WORK</td>
<td>STANDARD SPECIFICATIONS</td>
<td>ADDITIONAL SPECIFICATIONS</td>
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<tr>
<td>1.</td>
<td>Cleaning the site, removing bushes including removal of roots upto 20cm.</td>
<td>As directed by Engineer-In-Charge.</td>
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<td>circumference and disposal of above stuffs upto a lead of 10mtr. or as</td>
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<td>directed by Engineer-In-Charge.</td>
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<td>2.</td>
<td>Excavation for widening of metal strips from 3.0 m. to 5.5 m. width in all</td>
<td>Rd.9/Page No.187</td>
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<td>soils including dressing section to the required grade, camber and side</td>
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<td>slopes and conveying the excavated materials with all lift upto a lead of</td>
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<td>50 m. and spreading for embankment or stacking etc. complete.</td>
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<td>section to the required grade, camber and side slopes and conveying the</td>
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<td></td>
<td>excavated materials with all lifts and spreading for embankment or stacking</td>
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<td>etc. complete.</td>
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<tr>
<td>4.</td>
<td>Transportation of material obtained from debris of various sorts including</td>
<td>As directed by Engineer-In-Charge.</td>
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<td>necessary excavation/ loosing including loading, unloading and conveying and</td>
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<td>disposing as directed.</td>
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<tr>
<td>5.</td>
<td>Compacting the earth work obtained from road cutting , excavation of road side</td>
<td>As directed by Engineer-In-Charge.</td>
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<td></td>
<td>drain by Static roller having weight 8 to 10 MT. and watering etc. Complete</td>
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Rs. One Crore Eleven Lakh Seventy One Thousand Eight Hundred Fifteen And Paise Nil Only.

Asstt. Engineer Gr-I
Public Works Sub-Division
Narkhed

NAME OF WORK: ST BT TO DISTRICT BORDER TO ISMAILPUR VADVIHIRA MENDHALA WADHONA RAMATHI ARMBHI KHARALA LOHARISAWANGA TO JOIN SH WAY 323 ROAD (MDR 72) KM 4/00 TO 7/00 IN NARKHED TALUKA AND DIST NAGPUR

SCHEDULE “C”
<p>| 6.  | Scarifying flexible pavements to a depth of 50 mm and disposal of dismantled materials up to a lead up to 1000 metres, stacking serviceable and unserviceable materials separately, including compaction of sub base etc. complete. (A) By Manual means | M.O.R.T. &amp; H.2013 Cl. 305.4.3. |
| 7.  | Providing &amp; laying granular sub-base as per table 400-1 including, spreading in uniform layers on prepared surface, mixing by mix in place method at OMC, and compacting with Vibratory power roller to achieve the 98% of maximum dry density so as to have CBR not less than 30, etc complete. | M.O.R.T. &amp; H. 2013. Cl. 401. P.No. 109. |
| 8.  | Providing, laying and compacting WBM with aggregates of specific grading including spreading in uniform thickness, hand packing, rolling with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening / material same as per course aggregates binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density as directed etc. complete. (Compacted thickness of each layer shall be 75 mm) For grade I material, using stone screening type B | M.O.R.T. &amp; H.  Cl. 404 .P.No.121. |
| 9.  | Providing, laying and compacting WBM with aggregates of specific grading including spreading in uniform thickness, hand packing, rolling with vibratory roller in stages to proper grade and camber, applying and brooming requisite type of screening / material same as per course aggregates binding Materials to fill up the interstices of coarse aggregate, watering and compacting to the required density as directed etc. complete. (Compacted thickness of each layer shall be 75 mm) For grade II material, using stone screening type B | M.O.R.T. &amp; H.  Cl. 404 .P.No.121. |
| 10. | Supplying murum having PI &lt; 6 at the road side, including conveying and stacking complete | Rd.23/Page No.202 |
| 11. | Spreading gravel / sand / soft murum /available murum over rubble soling /W.B.M.surface blanketing berms etcocomplete. | Rd.28/Page No.205 |
| 12. | Compacting the hard murum side widths layer on each side with Static roller including necessary artificial watering etc.complete . By Static Roller Having Weight 8 to 10 MT. | Rd.40/Page No.211 |
| 13. | Providing &amp; applying Prime coat with Bitumen VG-10 grade on WBM / WMM of granular base , spraying bitumen @ 0.75 kg/sqm with the help of self propelled or towed bitumen pressure sprayer equiped with suitable nozels to achive uniform dose, including cleaning of road surface by power mechanical sweepers etc. complete. | M.O.R.T. &amp; H 2013 CI - 502 / Page No. 166 |
| 14. | Providing and constructing 50 mm. thick Modified Penetration Macadam (MPM) road surface including all materials, preparing the existing road surface, spreading 40mm. stone layers metal 30% crusher broken metal + 70% Hand broken metal (By breaking Rubble obtained by blasting) , heating and spraying the bitumen of VG-30 @ 1.75 kg / sqm, spreading 12mm.size chips compacting with Static roller having weight 8 to 10 MT. to achieve the desired degree of compaction as per Technical Specification Clause 506 etc complete, including applying tack coat at the rate of IRC SP-20-2002, Clause No.8.7.3, Appendix 8.4 |</p>
<table>
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<tr>
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<th>Description</th>
<th>Clause/Reference</th>
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</thead>
<tbody>
<tr>
<td>15.</td>
<td>Providing, laying and compacting of built-up-spray grout layer 75 mm thick over prepared base consisting of two layers composite construction of compacted crushed coarse aggregates with application of bituminous binder of VG-30 Grade @ 1.520 Kg/ Sqm after each layer, (i.e. 1.520x2=3.04 say 3.00 Kg/Sqm) and with key aggregates placed on top of the second layer and compacting with static roller 8 to 10 Mt. Including cost of tack coat and scarifying etc. Complete.</td>
<td>M.O.R.T.&amp; H. 2001.</td>
</tr>
<tr>
<td>16.</td>
<td>Providing, laying and rolling open - graded premix surfacing (Hot Mix Hot Laid) of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates using bitumen of VG-30 grade @ 1.46kg./sqm to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable drum mix plant, laying with paver finisher finisher and rolling with static roller of 8-10 MT, finished to required level and grades. Including tack coat of VG-10 grade Bitumen @ 0.30kg / sqm etc complete. a) Drum mix plant with paver finisher without SCADA</td>
<td>M.O.R.T.&amp; H 2013. Cl-510.P.N.198.</td>
</tr>
<tr>
<td>17.</td>
<td>Providing bituminous Type B Premix seal coat on bituminous surface, including supplying all materials &amp; bitumen of VG-30 grade @ 0.68 Kg/sqm, preparing existing road surface, heating bitumen including in suitable drum mix plant, mixing, laying with paver finisher and rolling by static roller having weight 8 to 10 MT etc. complete. (Tack coat is not required.)</td>
<td>M.O.R.T.&amp; H.2013. Cl. 511 Page No. 205</td>
</tr>
<tr>
<td>18.</td>
<td>Providing and laying cement concrete pipe of I.S.458/2003 N.P. 2 class of required diameter in proper line, level and slope including providing, fixing collars or spigot and socket joint by rubber ring and in C.M.1:2 etc complete.</td>
<td>MORT &amp; H 2001 Clause -2901 Page No.663</td>
</tr>
<tr>
<td>19.</td>
<td>Providing and fixing R.C.C. 1:2:4 200 m. stone of size (15 X 10 X 65 cm) as per I.R.C. design (IRC 26-1967) including cost of reinforcement @ 100 kg / cum), painting, numbering, fixing in standard size (35 X 30 X 40 cm) C.C. 1:4:8 block etc complete.</td>
<td>M.O.R.T. &amp; H. 2013 CL.807P.No.357.</td>
</tr>
<tr>
<td>20.</td>
<td>Providing R.C.C. 1:2:4 5th Km. Stone on S.H. and M.D.R. etc. including cost of reinforcement @ 100 kg / cum), painting, numbering etc. complete as per IRC design (IRC 8-1980) for highway 5th km. Stones and fixing in standard size (55 X 80 X 60 cm) C.C. 1:4:8 block etc complete.</td>
<td>M.O.R.T. &amp; H. 2013 CL.807P.No.357.</td>
</tr>
<tr>
<td>21.</td>
<td>Providing R.C.C 1:2:4 ordinary km. Stones including cost of reinforcement @ 100 kg / cum) painting numbering etc. complete for S.H. way and M.D.R. as per IRC design (IRC 8-1980) for highway km stone and fixing in standard size (63 X 63 X 60 cm) C.C. 1:4:8 block etc complete.</td>
<td>M.O.R.T. &amp; H. 2013 CL.807P.No.357.</td>
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<td>Description</td>
<td>Details</td>
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<tr>
<td>22.</td>
<td>Retro-Reflectorised Traffic Signs Providing and fixing of retro-reflectorised cautionary, mandatory and informative sign as per IRC : 67-2012 made of High intensity micro Prismatic grade sheeting (Type IV) vide clause no. 801.3.3 as per ASTM D 4956-09 specifications, fixed over 2.00 mm thick aluminium sheeting / 3mm to 4.00 mm thick ACP Sheetting Supported with back support frame 25mm x 25mm x 3mm, duly painted on back side with two coats of grey stove enamel paint &amp; supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm, 3.5 mt long firmly fixed to the ground by means of properly designed foundation with M20 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved drawing. The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including GI fixures and transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retro-reflective sheeting should be with seven years written warranty from the manufacturer &amp; authorised distributor/convertor, for satisfactory field performance, durability &amp; stipulated retro-reflectance of retro-reflective sheeting. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</td>
<td>M.O.R.T. &amp; H 2013. Cl 801 P.No.325.</td>
</tr>
<tr>
<td>23.</td>
<td>Direction and Place Identification signs upto 0.9 sqm size board. Providing and erecting direction and place identification retro-reflectorised sign as per IRC:67 made of High intensity micro Prismatic grade sheeting (Type IV) vide clause no. 801.3.3 as per ASTM D 4956-09 specifications, fixed over 2 mm thick aluminium sheeting / 3mm to 4.00 mm thick ACP Sheetting Supported with Back support frame of 35x35x5 mm mild steel angle with area not exceeding 0.9 sqm, duly painted on back side with two coats of grey stove enamel paint &amp; supported on a mild steel single angle iron post 75 x 75 x 6 mm, 3.5 m long firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 x 45 x 60 cm, 55 cm below ground level as per approved drawing. The angle iron post shall be duly painted with one coat of epoxy primer and two coats of epoxy finish paints having alternate black and white bands of 25 cm width including GI fixures and transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retro-reflective sheeting should be with seven years written warranty from the manufacturer &amp; authorised distributor/convertor, for satisfactory field performance, durability &amp; stipulated retro-reflectance of retro-reflective sheeting. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</td>
<td>M.O.R.T &amp; H. 2013 Cl 801.P.No.325.</td>
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<td>No.</td>
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<tr>
<td>24.</td>
<td>Providing and fixing informative sign boards in square or rectangular shape of any size made out 16 gauge (1.6 mm) thick mild steel sheet painted with one coat of zinc chromate-stoving primer and two coats green stove enamel paint on front side and grey stove enamel on back side and border / message / symbols etc. with cut out of High intensity micro Prismatic grade sheeting (Type IV) vide clause no 801.3.3 as per ASTM D 4956 specifications, fixed over 2.00 mm thick aluminium sheeting / 3mm to 4.00 mm thick ACP Sheeting Supported including M.S. angle frame of 35 mm x 35 mm x 3 mm and two M.S. angle iron post of size 65 mm x 65 mm x 6 mm, 3.65 m long properly cross braced with angle iron of size 50 mm x 50 mm x 5 mm duly painted with alternate black and white bands of 25 cm width including G.I. fixtures etc. and fixing the board in 1:4:8 concrete block of size 60 cm x 60 cm x 75 cm including transportation etc. complete. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Retroreflective sheeting should be with five years written warrenty from the manufacture &amp; authorised distributor/convertor,for satisfactory field retroreflectance of retroreflective sheeting. performance,durability &amp; stipulated. This certificate in original should be submitted to the Engineer in charge by the contractor/supplier.</td>
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<td>25.</td>
<td>Excavation for catch water gutter in all sort of soils, soft murum by manual means to the specified section including stacking the excavated stuff in regular bund and disposing off unsuitable or excess stuff upto a lead of 50 m and spreading etc. complete.</td>
<td></td>
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<tr>
<td>26.</td>
<td>Excavation for foundation in earth, soils of all types, sand, gravel soft murum etc. including shoring and strutting as necessary and disposing off excavated stuff within lead of 100 m as directed etc. complete. a) Lift upto 1.5 metre</td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>Providing soling using 80 mm size granite / quartzite / gneiss / trap metal in 15 cm. layer including hand packing filling voids with sand / grit, ramming, watering etc complete. (Including Royalty)</td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>Providing and laying in situ, cement concrete M-10/(1:3:6) of trap/granite/quartzite/gneiss metal for foundation and bedding including plywood/steel formwork bailing out water, compacting, finishing uneven and honeycombed surface, curing etc. complete. The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be permitted if brick centering is possible.)</td>
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Rd.9/Page No.187

BR.3/Page No.102

As directed by Engineer-in-charge.

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<th>No.</th>
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<tr>
<td>29.</td>
<td>Providing and laying in situ cement concrete of M-20 grade of trap / granite / quartzite / gneiss metal for R.C.C. work in foundations like raft, grillages, strip foundations and footings of R.C.C. columns and steel stanchions including bailing out water, plywood/steel formwork, compaction, curing and roughening the surface if special finish is to be provided, finishing uneven and honeycombed surface with C.M. 1:3 of sufficient minimum thickness to give smooth and even surface etc. complete. (Excluding reinforcement and structural steel, including cover block) The Cement Mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering will not be allowed).</td>
<td>Bd.F.3/Page No.298/I.S. 456 (2000)</td>
</tr>
<tr>
<td>30.</td>
<td>Providing and laying in situ cement concrete of M-15 / 1:2:4 with trap / granite / quartzite / gneiss metal in face wall/Sidewall of builtup drains including plywood/ steel formwork and steel centering, compaction by vibrator, finishing uneven and honeycombed surface with C.M.1:3 of sufficient minimum thickness to give smooth and even surface, filling joints with bitumen, curing etc. complete. (Excluding cost of reinforcement.) The C.M. 1:3 plaster is considered for rendering uneven and honeycombed surface only. Newly laid concrete shall be covered by gunny bag, plastic, tarpaulin etc. (Wooden centering/formwork will not be allowed).</td>
<td>CD.3/Page No.160 /I.S.456 (2000)</td>
</tr>
<tr>
<td>31.</td>
<td>Providing PRECAST M-20 R.C.C. slabs over the spans of Cross Drainage work as per drawings including reinforcement, conveyance, fixing in C.M. 1:3 and curing, finishing complete.</td>
<td>CD.12/Page No.166/I.S.456 (2000)</td>
</tr>
<tr>
<td>32.</td>
<td>Providing and fixing AC / UPVC pipes of 110 mm diameter and of required length for relieving water pressure, stone filter as directed complete.(For relieving water pressure in raft abutment riding returns).</td>
<td>As directed by Engineer-in-charge.</td>
</tr>
<tr>
<td>33.</td>
<td>Providing and filling sand below raft and in box return including watering and compaction etc.complete.</td>
<td>As directed by Engineer-in-charge.</td>
</tr>
<tr>
<td>34.</td>
<td>Providing and cutting, bending, hooking, laying, in position and tying bar reinforcement as per detailed drawing for R.C.C. works etc. complete.</td>
<td>BR.35/Page No.134</td>
</tr>
</tbody>
</table>