

[Insert Name of Executing Agency]

# **First Draft Document for Smart Roads**

## **Urban Revitalization and Junction Improvement**

[Insert executing agency's authorized representative]

[Insert executing agency]

**Issued on: *[Insert  
Date]***

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## **SECTION 1**

- **LIST OF IMPORTANT DATES**
- **NOTICE INVITING TENDERS**

**SECTION I****List of Important Dates of Bids for the project**

| <b>S. No.</b> | <b>Activity</b>                                | <b>Timeline</b>  |
|---------------|--|--|
| 1.            | Name of Work                                   | <i>[Insert title of project]</i>   |
| 2.            | Completion Period for Construction             | <i>[Insert duration in months]</i>   |
| 3.            | Date of issue of Notice Inviting Bid           | <i>[Insert date for inviting bids]</i>   |
| 4.            | Period and Places of sale of Bidding Documents | <p>From __/__/2018 to __/__/2018</p> <p><b>Places:</b> (i) <i>[Insert executing agency's authorised representative title and address]</i> Contact Number <i>[Insert Contact number of authority]</i> and through mail at <i>[Email address of authority]</i>.</p> <p>(ii) <b>Website:</b> <i>[Insert website address where RfP available and <a href="http://www.smartnet.niua.org">www.smartnet.niua.org</a>]</i></p> |
| 5.            | Time, Date and Place of pre-bid meeting        | <i>[Insert Date, Time and Place of Pre-bid Meeting]</i>  |
| 6.            | Deadline of receiving e-bids                   | <i>[Insert date and time deadline for receiving bids]</i>  |
| 7.            | Bid Validity Period                            | <i>[Insert bid validity period]</i>  |
| 8.            | Offer Inviting Authority                       | <i>[Insert executing agency's authorised representative],<br/>[Insert executing agency]</i>  |

## Section 1

### **NOTICE INVITING TENDER (e-tender)**

*[Insert executing agency name and address]*

**NIT No.-[Insert Bid Number] Date: [Insert Date]**

1. The *[Insert executing agency's authorized representative]* *[Insert executing agency]* invites sealed tender for the following works:-

| S.No. | Name of the project   | Nature of the project                                     | Tender Fee non-refundable (Rs.) | Earnest Money Deposit (Rs.) |
|-------|---|---|---------------------------------|-----------------------------|
| -     | <i>"Insert Title with description of works like Urban Revitalization of Roads and Junction Improvement Project in ABD Area"</i><br><b>RFP No. [Insert RfP number]</b> | <i>[Insert nature of project for example. Civil Work]</i> | [Insert amount]                 | [Insert amount]             |
|       | <i>"Insert title such as "Improvement and Up-gradation of [Insert number] Road Intersection (including 5 years O&amp;M)""</i><br><b>RFP No. [Insert RfP number]</b>   | <i>[Insert nature of project for example. Civil Work]</i> | [Insert amount]                 | [Insert amount]             |

2. Tender documents can be downloaded from the e-tendering website *[Insert name of e-tendering website]* from *[Insert date]* from *[Insert time]* to *[Insert date]* *[Insert time]*
3. Bidders are requested to submit the Tender fee receipt in the office of *[Insert executing agency's authorised representative]* in the form of DD/FDR/ Bankers Cheque
4. The last date for pre-bid queries is *[Insert date]* till *[Insert time]* through e-mail on *[Insert email address of executing agency]* and pre-bid meeting will be held on *[Insert date]* at *[Insert time]* in the office of *[Insert executing agency's authorised representative]*
5. The deadline of bid-submission is *[Insert time]* on *[Insert date]*
6. For more details contact *[Insert executing agency's authorized representative]* *[Insert address]*, Contact Number *[Insert Contact Number]*, and through mail at *[Insert email]*

*[Insert executing agency's authorized representative]*

*[Insert executing agency name and address]*

## Section 2

### Instructions to Bidders

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**Online Submission**  
**Instructions to Bidders (ITB)**

*A. General*

1. **Scope of Bid**

- 1.1 The Employer as defined in the Appendix to ITB invites bids for the construction of Works as described in these documents and referred to as “the works”. The name and identification number of the works is provided in the Appendix to ITB. The bidders may submit bids for any or all of the works detailed in the table given in the Notice Inviting Tender. Bid for each work should be submitted separately.
- 1.2 The successful Bidder will be expected to complete the Works by the Intended Completion Date specified in the Part I General Conditions of Contract.
- 1.3 Throughout these documents, the terms “bid” and “tender” and their derivatives (bidder/ tendered, bid/ tender, bidding/ tendering, etc.) are synonymous.

2. **Source of Funds**

- 2.1 The Government of India as defined in the Appendix to ITB has decided to undertake the works of construction of roads
- 2.2 The Government of India has decided to provide funds for the construction of the roads.

3. **Eligible Bidders**

- 3.1 This Invitation for Bids is open to all bidders as defined in the Appendix to ITB.
- 3.2 Bidder should be registered in any State/Central Govt. organization.
- 3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government.
- 3.4 Any bidders having **criminal record** is not allowed to participate in the online bidding process. Any person who is having criminal cases against him or involved in the **organized crime or gangster activities or Mafia or Goonda or Anti social activity** are strictly prohibited to participate in the bidding process. If it is established that any bidder has **criminal record, his bid shall be automatically cancelled.**
- 3.5 The bidder has to produce/attach character certificate, Solvency certificate, self declaration affidavit (on the prescribed Performa which is attached with the bid document) etc., issued by the competent authority in original with bid document.
- 3.6 Any bidder who is an Advocate and Registered with any State Bar Council Shall not be allowed to participate in the bidding. If it is established that the contractor is registered with the state bar council, **his bid shall be automatically cancelled.**

4. **Qualification of the Bidder**

- 4.1 All bidders shall provide in Section 3, Forms of Bid and Qualification information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary.
- 4.2 All bidders shall include the following information and documents with their bids in Section 3, Qualification Information unless otherwise stated in the Appendix to ITB:
- (a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;
- (b) Total monetary value of civil construction works performed for each of the last five years;

- (c) Experience in works of a similar nature and size for each of the last five years, and details of works in progress or contractually committed with certificates from the concerned officer of the rank of Executive Engineer or equivalent;
- (d) Evidence of ownership of major items of construction equipment named in Clause 4.4 B (b) (i) of ITB or evidence of arrangement of possessing them on hire/lease/buying as defined therein.
- (e) Details of the technical personnel proposed to be employed for the Contract having the qualifications defined in Clause 4.4 (b) (ii) of ITB for the construction.
- (f) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past three years;
- (g) an undertaking that the bidder will be able to invest a minimum of cash up to the percentage (defined in the Appendix to ITB) of the contract price of works, during the implementation of the works;
- (h) Evidence of access to line(s) of credit and availability of other financial resources/ facilities (10 percent of the contract value) certified by banker (the certificate being not more than 3 months old.)
- (i) Authority to seek references from the Bidder's bankers;
- (j) information regarding any litigation or arbitration during the last five years in which the Bidder is involved, the parties concerned, the disputed amount, and the matter;
- (k) Proposal for subcontracting the components of the works for construction/ Up gradation aggregating not more than 25% of the contract price: -and
- (l) The proposed methodology and program of construction, backed with equipment and material planning and deployment, duly supported with broad calculations and Quality Management Plan proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications and within the stipulated period of completion.

#### 4.3 **Bids from Joint venture (JV) are allowed.**

- All the members of JV shall be jointly and severally responsible for all matters / obligations under this bid document / contract agreement.
- "JV will be allowed with a maximum no. of 3 firms (lead member + 2 other member).
- "Lead Member" means the member which will take the lead in the management of the Joint Venture's affairs and which will provide the Joint Venture's Representative for liaison with the Employer and, unless otherwise agreed by the Members, the Services Manager for direction of the conduct of the Services.
- "Associate Members" means the individuals or firms which have agreed to Joint Venture.
- The Financial and Technical Qualifications shall be solely fulfilled by the Lead Partner and the Key Activities shall be fulfilled by all the members of the Joint Venture."
- The Performance security for the contract shall be in the name of JV.
- The Power of attorney of the signatory[ies] on behalf of the JV for all purposes including signing of agreement, payment, regular communication etc is attached.

#### 4.4 A To qualify for award of the Contract, each bidder should have in the last five years:

- The applicant shall have average annual turnover during last 3 years on Construction of Civil / Roads Works not less than 50% of the estimated cost of the project (excluding maintenance cost of the project). (The estimated cost is *[Insert estimated cost]* excluding O&M)
- Experience of having successfully completed similar works during last 05 year ending last day of month previous to the month of opening of Tender Part- I, satisfying either of the following.
  - 1) Two similar completed works each costing not less than the amount equal to 50% of the estimated cost (excluding maintenance cost of the project).

OR

2) One similar completed work costing not less than the amount equal to 80% of the estimated cost. (excluding maintenance cost of the project)

**Similar Work:** Construction of Road /Street/ Junction / Corridor Improvement Work completed in last 5 years.



- **Key Activities** (jointly with at least 2 to be fulfilled by the lead member)

Experience in any three of the following categories:

1. Construction of Urban roads/streets of at least 10 kms. or above
2. Construction of Urban drains of at least 15 kms. or above
3. Construction of Junction improvements of at least 04 Nos. or above
4. Construction of Footpaths of at least 15,000 sqm. or above

4.4 B (a) Each bidder must attach:

- (i) The current income-tax clearance certificate;
- (ii) An affidavit that the information furnished with the bid documents is correct in all respects; and
- (iii) Such other certificates as defined in the Appendix to ITB. Failure to produce the certificates shall make the bid non-responsive.

(b) Each bidder must demonstrate:

- (i) Availability for construction work, of the owned, key equipment stated in the Appendix to ITB including equipments required for establishing field laboratory to perform mandatory tests, and those stated in the Appendix to ITB;
- (ii) Availability for construction work of technical personnel as stated in the Appendix to ITB.
- (iii) Liquid assets and /or credit facilities, net of other contractual commitments and exclusive of any advance payments which may be made under the Contract, of not less than the amount specified in the Appendix to ITB;

(c) The bidder must not have in his employment:

- (i) The near relations (defined as first blood relations, and their spouses, of the bidder or the bidder's spouse) of persons listed in the Appendix to ITB.
- (ii) Without Government permission, any person who retired as gazetted officer within the last two years of the rank and from the departments listed in the Appendix to ITB.

4.4.C To qualify for a package of contracts made up of this and other contracts for which bids are invited in the Notice Inviting Tender, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.5 Sub contractors experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria except to the extent stated in 4.4 A above

4.6 Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value. The available bid capacity will be calculated as under:

$$\text{Assessed Available Bid capacity} = (A*N*M - B)$$

Where

A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the last year at the rate of 8 percent a year) taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of the works for which bids are invited (period up to 6

months to be taken as half-year and more than 6 months as one year).

M = M is taken 2.5

B = Value, at the current price level, of existing commitments and on-going works to be completed during the period of completion of the works for which bids are invited.

Note: The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

- 4.7 Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
- (i) Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
  - (ii) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.
  - (iii) Participated in the previous bidding for the same work and had quoted unreasonably high or low bid prices and could not furnish rational justification for it to the Employer.

## **5. One Bid per Bidder**

- 5.1 Each Bidder shall submit only one Bid for one work. A Bidder who submits more than one Bid will cause the proposals with the Bidder's participation to be disqualified.

## **6. Cost of Bidding**

- 6.1 The Bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will, in no case, be responsible or liable for those costs.

## **7. Site Visit**

- 7.1 The Bidder, at his own cost, responsibility and risk, is encouraged to visit, examine and familiarize himself with the Site of Works and its surroundings including source of earth, water, road aggregates etc. and obtain all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense. He may contact the person whose contact details are given in the Appendix to ITB.

## **B. Bidding Documents**

### **8. Content of Bidding Documents**

- 8.1 The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10 of ITB.

1. Notice Inviting Tender
2. Instructions to Bidders
3. Qualification Information
4. Conditions of Contract

(Part I General Conditions of Contract, and Contract Data; Part II Special Conditions of Contract)

5. Specifications
6. Drawings
7. Bill of Quantities
8. Form of Bid
- 9 Form of Acceptance, Form of Agreement, Issue of Notice to Proceed with the Work, form of Unconditional Bank Guarantee.

8.2 Bidding document will be available online on the website <http://etender.up.nic.in>

8.3 The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms and specifications, bill of quantities, forms and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 25 hereof, bids, which are not substantially responsive to the requirements of the Bid Documents, shall be rejected.

## **9. Clarification of Bidding Documents and Pre-bid Meeting**

9.1 A prospective bidder requiring any clarification of the bidding document may notify the employer in writing or by cable ("cable" includes Telex and facsimile) at the employer address indicated in the Notice inviting tenders. The Employer will respond to any request for clarification received earlier than 10 Days prior to the dead line for submission of bid. Copies of the employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry, but without identifying its source

9.2 If a pre-bid meeting is to be held, the bidder or his authorized representative is invited to attend it. Its date, time and address are given in the Appendix to ITB.

9.2.1 The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.2 The bidder is requested to submit any questions in writing or by cable so as to reach the Employer not later than one week before the meeting.

9.2.3 Minutes of the meeting, including the text of the questions raised (without identifying the source of the enquiry) and the responses given will be transmitted online (or otherwise). Any modifications of the bidding documents listed in Clause 8.1 of ITB, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively online through the issue of an Addendum pursuant to Clause 10 of ITB and not through the minutes of the pre-bid meeting.

9.2.4 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

## **10. Amendment of Bidding Documents**

10.1 Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda online.

10.2 Any addendum thus issued shall be part of the bidding documents.

10.3 To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer shall extend, as necessary, the deadline for submission of bids, in accordance with Clause 20.2 of ITB.

### ***C. Preparation of Bids***

#### **11. Language of Bid**

11.1 All documents relating to the Bid shall be in the language specified in the Appendix to ITB.

#### **12. Documents Comprising the Bid**

12.1 The Bid submitted by the Bidder shall be in two separate parts:

**Part I** This shall be named Technical Bid and shall comprise of:

- I. Earnest Money;
- II. Qualification information, supporting documents, affidavit and undertaking as specified in Clause 4 of ITB.
- III Undertaking that the bid shall remain valid for the period specified in clause 15.1 of ITB.
- IV Any other information / documents required to be completed and submitted by bidders, as specified in the appendix to ITB, and
- V. An affidavit affirming that information he has furnished in the bidding document is correct to the best of his knowledge and belief.

**Part II.** It shall be named Financial Bid and shall comprise of:

- (i) Form of Bid as specified in Section 6;
- (ii) Priced bill of quantities for items specified in Section 7;

#### **12.2 The following documents, which are not submitted with the bid, will be deemed to be part of the bid section particulars**

1. Notice inviting Tender
2. Instruction to the bidders
3. Conditions of Contract
4. Contract Data
5. Specifications
6. Drawings

#### **13. Bid Prices**

- 13.1 The Contract shall be for the whole Works, as described in Clause 1. 1 of ITB, based on the priced Bill of Quantities submitted by the Bidder.
- 13.2 The Bidder shall adopt the Percentage Rate Method as specified in the Appendix to ITB; only the same option is allowed to all the Bidders. Percentage Rate Method requires the bidder to quote a percentage above / below/ at par of the schedule of rates specified in the Appendix to ITB.
- 13.3 All duties, taxes, royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder.
- 13.4 The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment.

**14. Currencies of Bid**

14.1 The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees.

**15. Bid Validity**

15.1 Bids shall remain valid for a period of ninety days after the deadline date for bid submission specified in Clause 20 of ITB. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.

15.2 In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his Earnest Money. A bidder agreeing to the request will not be required or permitted to modify his bid, but will be required to extend the validity of his earnest money for a period of the extension, and in compliance with Clause 16 of ITB in all respects.

**16. Earnest Money**

16.1 The Bidder shall furnish, as part of the Bid, Earnest Money, in the amount specified in the Appendix to ITB.

16.2 The Earnest Money shall, at the Bidder's option, be in the form of Fixed Deposit Receipt of a scheduled commercial bank, NSC, Post office saving Bank issued in favor of the name given in the Appendix to ITB. The Fixed Deposit Receipt shall be valid for six months or more after the last date of receipt of bids. Other forms of Earnest Money acceptable to the Employer are stated in the Appendix to ITB. Earnest money will be deposited, physically, with officer calling tender, before last date of submission of tender. A scanned copy of earnest money document will be submitted along with the tender

16.3 Any bid not accompanied by an acceptable Earnest Money, unless exempted in terms given in the Appendix to ITB, shall be rejected by the Employer as non-responsive.

16.4 The Earnest Money of unsuccessful bidders will be returned within 28 days of the end of the Bid validity period specified in Clause 15.1 of ITB.

16.5 The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.

**16.6 The Earnest Money may be forfeited:**

- a) If the Bidder withdraws the Bid after bid opening (technical bid) during the period of Bid validity;
- b) In the case of a successful Bidder, if the Bidder fails within the specified time limit to
  - i. Sign the Agreement; and/or
  - ii. Furnish the required Performance Security.

**17. Alternative Proposals by Bidders**

17.1 Bidders shall submit offers that comply with the requirements of the bidding documents, including the Bill of Quantities and the basic technical design as indicated in the drawings and specifications.

Alternative proposals will be rejected as non-responsive.

## **18. Format and Signing of Bid**

- 18.1 The Bidder shall submit one set of the bid comprising of the documents as described in Clause 12 of ITB.
- 18.2 The Bid shall be submitted on line and shall be digitally signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Clause 4.3(a) of ITB. The person or persons signing the Bid shall sign all pages of the Bid.

## **D. Submission of e-Bids**

The Bid Submission module of e-procurement website <http://etender.up.nic.in> enables the bidders to submit the e-bids online against this bidding published by the purchaser. Bid may be submitted only during the period and time stipulated in the bidding. Bidders are advised to start the Bid Submission process well in advance so that they can submit their bids in time. The bidders shall submit their bids taking into account the server time, displayed in the e-procurement website. This server time is the time by which the bid submission activity will be allowed till the permissible time on the last date of submission stipulated in the schedule. The bidders cannot submit their bids after the completion of bid submission period. For delay in submission of bids due to any reasons, shall be responsibility of the bidder. The bidders shall follow the instructions mentioned herein under for submission of their e-bids.

- For participating in bids through the e-bidding system, it is necessary for the bidders to be the registered users of the e-procurement website <http://etender.up.nic.in>. The bidders shall first register themselves on the e-bidding website, if they have not done so previously, using the option “Click here to enroll” available on the home page of the website.
- In addition to the normal registration, the bidder has to register with their Digital Signature Certificate (DSC) in the e-bidding system and subsequently he/ she will be allowed to carry out his /her bid submission activities. Registering the Digital Signature Certificate (DSC) is a onetime activity. Before proceeding to register their DSC, the bidder shall first log on to the e-bidding system using the User Login option on the home page with the logging ID and Password with which they has registered as per clause 1.1 above. For successful registration of DSC on e-procurement website <http://etender.up.nic.in> the bidder must ensure that they possess class-2 /Class-3 DSC issued by any certifying authorities duly approved by Controller of Certifying Authorities. The bidder is also advised to register their DSC on E-procurement website well in advance before bid submission period & time so that they do not face any problem while submitting their e-bid against this bidding. The bidder can perform User Login creation and DSC registration exercise as described in clauses 1.1 and 1.2 above even before bid submission period starts. The purchaser shall not be held responsible if the bidder tries to submit their e-bid at the last moment of submission of bid, but could not submit due to DSC registration problem.
- The bidder can search for active biddings through “Search Active Biddings” link, select a bidding in which they are interested in and then move it to ‘My Biddings’ Folder using the option available in the Bid Submission menu. After selecting and viewing the bidding, for which the bidder intends to bid, from “My Biddings” folder, the bidder can place their bid by clicking “pay Offline” option available at the end of the view bidding form. Before this, the bidder should download the bidding document and price Schedule/Bill of Quantity (BOQ) and study them carefully. The bidder shall keep all the documents ready as per the requirements of bidding document in the PDF format except the Price Schedule/Bill of Quantity (BOQ) which shall be in the XLS Format (EXCEL sheet).
- After clicking the ‘Pay offline’ option, the bidder shall be redirected to the relevant page of Terms and conditions. The bidder shall read the Terms and conditions before proceeding to fill in the Bidding fee EMD offline payment details. After entering and saving the Bidding Fee and EMD details, the bidder shall click “Encrypt & Upload” option given in the offline payment details form so that “Bid Document

Preparation and Submission” window appears to upload the documents as per technical (Fee details, Qualification details, Bid Form and Technical Specification details) and financial (Bid Form and Price Schedule/BOQ) schedules/packets given in the bidding details. The details of the Demand Draft or any other accepted instrument which is to be sent physically in the original before opening of technical bids, should tally with the details available in the scanned copy and the data entered during with submission time otherwise the bid submitted shall not be accepted.

- Next, the bidder should upload the Technical Bid Documents for fee details (Bidding fee and EMD), Qualification details as per PQC, and Financial Bid documents as per BOQ of bidding document. Before uploading, the bidder has to select the relevant Digital signature Certificate. They may be prompted to enter the digital signature Certificate password, if necessary. For uploading, the bidder should click “Browse” button against each document label in Technical and Financial schedules/packets and then upload the relevant PDF/XLS files already prepared and stored in the bidder’s computer.
- The Bidder shall click “Encrypt” next for successfully encrypting and uploading of required documents. During the above process, the bid documents are encrypted/ locked electronically with the DSC’s of the Bid openers to ensure that the bid documents are protected, stored and opened by concerned bid openers only.
- After successful submission of bid documents, a page giving the summary of bid submission will be displayed that the process of e- bid submission is completed. The bidder can take a printout of the summary using the “print” option available in the window as an acknowledgement for future reference.
- Purchaser reserves the right to cancel any or all Bids without assigning any reason.
- The Bidders are advised to upload the scanned documents with minimum of 150 dpi scanner to ensure readable uploaded e-Bids.

#### 19. **Sealing and Marking of Bids**

- 19.1 The Bidder shall have to bid on line separately for Technical and financial bid . Technical Bid: To be opened on *[Insert Date]* at *[Insert Time]* (Date and time of Technical Bid opening as per clause 22.1 of ITB.) Financial Bid: Not to be opened except with the approval of the Employer.

#### 20. **Deadline for Submission of Bids**

- 20.1 Complete Bids (including Technical and Financial) must be received by the Employer in the Appendix to ITB not later than the date and time indicated in the Appendix to ITB.
- 20.2 The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10.3 of ITB, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

#### 21. **Late Bids**

- 21.1 No Provision/Consideration on Late Bid/Bids Submission.

#### E. **Bid Opening and Evaluation**

#### 22. **Bid Opening**

- 22.1 The Employer will open the bids received, on line in the presence of the bidders/bidders’ representatives who choose to attend at the time, date and place specified in the Appendix to ITB. In the event of the specified date for the submission of bids being declared a holiday for the Employer, the Bids will be opened at the appointed time online on the next working day.
- 22.2 The technical bid shall be opened online.
- 22.3 The Employer will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Clause 22.3 of ITB.
- 22.4 Evaluation of the technical bids with respect to bid security, qualification information and other information furnished in Part I of the bid in pursuant to Clause 12.1 of ITB, shall be taken up and

completed within Ten working days of the date of bid opening, and a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.

- 22.5. The Employer shall inform, by E-mail (or otherwise the bidders, whose technical bids are found responsive, date, time and place of opening as stated in the Appendix ITB. In the event of the specified date being declared a holiday for the Employer, the bids will be opened at the appointed time online on the next working day through they or their representative, may attend the meeting of opening of financial bids.
- 22.6. At the time of the opening of the 'Financial Bid', the names of the bidders whose bids were found responsive in accordance with clause 22.5 of ITB will be announced. The financial bids of only these bidders will be opened. The responsive bidders' names, the Bid prices, the total amount of each bid, and such other details as the Employer may consider appropriate will be announced by the Employer at the time of bid opening. Any Bid price, which is not read out and recorded, will not be taken into account in Bid Evaluation.
- 22.7 The Employer shall prepare the minutes of the opening of the Financial Bids.
23. Process to be Confidential
- 23.1 Information relating to the examination, clarification, evaluation, and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any attempt by a Bidder to influence the Employer's processing of bids or award decisions may result in the rejection of his Bid
24. Clarification of Bids and Contacting the Employer
- 24.1 No Bidder shall contact the Employer on any matter relating to its bid from the time of the bid opening to the time the contract is awarded.
- 24.2 Any attempt by the bidder to influence the Employer's bid evaluation, bid comparison or contract award decision may result in the rejection of his bid.
25. Examination of Bids and Determination of Responsiveness
- 25.1 During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clauses 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities; and (d) is substantially responsive to the requirements of the bidding documents. During the detailed evaluation of the "Financial Bids", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications and drawings.
- 25.2 A substantially responsive "Financial Bid" is one that conforms to all the terms, conditions, and specifications of the bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive bids.
- 25.3 If a "Financial Bid" is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.



**26. Correction of Errors**

26.1 Bids determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

- a) Where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and
- b) Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

26.2 The amount stated in the Bid will be adjusted by the Employer in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount, the Bid will be rejected, and the Earnest money shall be forfeited in accordance with Clause 16.6(b) of ITB.

**27. Evaluation and Comparison of Bids**

27.1 The Employer will evaluate and compare only the bids determined to be substantially responsive in accordance with Clause 25 of ITB.

27.2 In evaluating the bids, the Employer will determine for each Bid the evaluated Bid price by adjusting the Bid price by making correction, if any, for errors pursuant to Clause 26 of ITB.

27.3 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in Clause 32 of ITB be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder.

27.4 If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of routine maintenance of works to be performed for five years under the contract, the Employer may require the Bidder to produce detailed price analyses for routine maintenance. After its evaluation, the Employer may require that the amount of the performance security set forth in Clause 32 be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder.

**28. Price Preference**

28.1 There will be no price preference to any bidder.

**F. Award of Contract**

**29. Award Criteria**

29.1 Subject to Clause 31 of ITB, the Employer will award the Contract to the Bidder whose Bid has been determined:

- i. To be substantially responsive to the bidding documents and who has offered the lowest evaluated Bid price, provided that such Bidder has been determined to be (a) eligible in

accordance with the provisions of Clause 3 of ITB, and (b) qualified in accordance with the provisions of Clause 4 of ITB; and

- ii. To be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.

30. Employer's Right to accept any Bid and to Reject any or all Bids

30.1 Notwithstanding Clause 29 above, the Employer reserves the right to accept or reject any Bid, and to cancel the bidding process and reject all bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or bidders or any obligation to inform the affected Bidder or bidders of the grounds for the Employer's action.

31. Notification of Award and Signing of Agreement.

31.1. The bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the Part I *General Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay to the Contractor in consideration of the execution, completion by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

31.2. The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 32.

31.3. The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and the successful Bidder after the performance security is furnished.

31.4 Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

32. **Performance Security**

32.1 Within 10 (ten) days after receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security of five percent of the Contract Price, for the period of one years and the time for completion of works plus additional security for unbalanced Bids in accordance with Clauses 27.3 and 27.4 of ITB and Clause 46 Part I General Conditions of Contract and sign the contract.

32.2 The performance security shall be either in the form of a Bank Guarantee or fixed deposit Receipts, in favour of *[Insert Name of Executing Agency's Authorized Representative]* Payable at *[Insert name of City]* from a Scheduled Commercial Bank.

32.3 Failure of the successful Bidder to comply with the requirements of Clause 32.1 shall constitutes sufficient grounds for cancellation of the award and forfeiture of the Earnest Money. He will also be debarred from participating future bids under *[Insert name of City]* Municipal Corporation for one year.

33. **Advances:**

33.1 The employer will provide mobilization advances and advance against security of equipment as provided in Part I General Condition Of Contract.

34. **Corrupt or Fraudulent Practices**

The Employer requires the bidders/Contractors to strictly observe the laws against fraud and corruption in force in India, namely, Prevention of Corruption Act, 1988.

## Appendix to Invitation To Bidders (ITB)

### Instructions to Bidders

#### Clause Reference

(1.1) The Employer is *[Insert Name of Executing Agency's Authorized Representative]*  
*[Insert name of City]*

(1.1) The Works is construction of following road with allied works as shown below

(2.1) The State is Uttar Pradesh

(3.1) Eligible Bidders Are: contractors registered with <http://etender.up.nic.in>

(4.2) The information required from bidders in Clause 4.2 is modified as follows:  
NONE

4.2 (g) The percentage is Ten

(4.4 A) (b) One Third of the estimated cost of works

(4.4 B) (a) (iii) Other certificates required with the bid are: As per ITB

(4.4. B) (b) (i) The key equipments for the project and for field testing laboratory

#### Name of the Equipment

1. Tar Boiler
2. Mixture/Mixol
3. Concrete Mixture
4. Water Tanker
5. Diesel Road Roller (8-10 Ton Capacity)
6. Vibratory Roller
7. Tractor
8. Truck
9. Hot mix plant with sensor paver
10. Air compressor
11. Mechanical Broom
12. Bitumen Distributor/ mechanical sprayer
13. Tipper
14. J.C.B.
15. Precast concrete moulds for Jersey Barrier and Kerbs
16. Pumpset
17. Equipments for cleaning drains i.e Spade, Pickaxe etc.

(4.4 B) (b)( ii) The Number of Technical personnel, Qualifications and Experience will be as follows:

#### A. The Technical Personnel are:

| Sr. No. | Name of the person/<br>Nos. | Qualification | Whether working<br>in field or office | Experience of<br>execution of<br>similar works |
|---------|-----------------------------|---------------|---------------------------------------|--|
| 1       | 2                           | 3             | 4                                     | 5  |
| 1       | Project Manager (1 Nos)     | B.E. Civil    | Field (fulltime)                      | 15 Years                                       |
| 2       | Project Engineer<br>(1 Nos) | B.E. Civil    | Field (fulltime)                      | 10 Years                                       |
| 3       | Architect                   | B. Arch       | Field (fulltime)                      | 5 Years  |
| 4       | MEP / Drainage<br>Expert    | Diploma Civil | Field (fulltime)                      | 5 Years  |

|   |                         |                      |                  |         |
|---|-------------------------|----------------------|------------------|---------|
| 5 | Site Engineer (2 Nos)   | Diploma Civil        | Field (fulltime) | 5 Years |
| 6 | Site Supervisor (3 Nos) | ITI or Diploma Civil | Field (fulltime) | 5 Years |

To ensure employment of Technical Personnel, the contractor would require giving the proof of payment of their salaries/ Wages by Cheque/ Demand Draft.

B. For field testing laboratory:

| Technical Personnel                    | Number | Experience in Road Works   |
|--|--------|--|
| A. Diploma holder in Civil Engineering | 2      | Minimum 5 years of Experience in Testing and Quality control in Road Work. |
| B. Lab Assistant/Technical (ITI/B.Sc)  | 4      | Minimum 2 years of Experience in maintenance of plant & machinery.         |
| E. Surveyor                            | 2      | Minimum 2 years of Experience in testing                                   |

(4.4 B) (b)(iii) The minimum amount of liquid assets and/or credit facilities net of other contractual commitments of the successful Bidder shall be 10% of the contract value

(4.4 B) (c) (i) The bidder must produce an affidavit stating that the near relations of the following departmental officers are not in his employment: J.E's, A.E.'s, E.E.'s, S.E.'s, and other staff of equivalent rank

(4.4 B) (c) (ii) The bidder must produce an affidavit stating the names of retired gazetted officer (if any) in his employment who retired within the last two years with the following ranks from the departments listed below: : [Insert name of State] .P.W.D., Municipal Corporation, Director Local Bodies, R.E.S. and. *[Insert name of State]* Irrigation. (Assistant Engineer, Executive Engineer, Superintending Engineer, Chief Engineer, Director cum Chief Engineer, Engineer-in-Chief) In case there is no such person in his employment, his affidavit should clearly state this fact.

(4.6) M = 2.5

(7.1) The contact person is:

*[Insert Name of Executing Agency's Authorized Representative]*

*[Insert Address]*

*[Insert Contact Number]*

*[Insert Email Address]*

(9.2.1) Place, Time and Date for pre-bid meeting are:

*[Insert Place]*

*[Insert Time] [Insert Date]*

(11.1) Language of the bid is: *English*

(12.1) Part I (v) The other documents required are:



- (13.2.) Bids may be submitted only in Percentage Rate Method
- (13.2) Schedule of Rate applicable for Percentage Rate Method is: As mentioned in the bill of quantities for percentage rate bids
- (16.1) The amount of Earnest Money shall be *[Insert amount]*
- (16.2) Fixed Deposit Receipt must be drawn in favour of: *[Insert name of Executing Agency's Authorised Representative]*
- (16.2) Other acceptable forms of Bid Security pledged in favour of: *[Insert name of Executing Agency's Authorised Representative]*, Post Office Saving account Pass book .
- (16.3) Exemption from Earnest Money is granted to: NONE
- (20.1) The Employer's address for the purpose of Bid submission is online submission
- (20.1.1) The deadline for submission of bids shall be:  
*[Insert Time]*  
*[Insert Date]*
- (20.1.2) The deadline for submission of bids in hard copy shall be:  
*[Insert Date]*  
*[Insert Time]*  
*[Insert Place]*
- (22.1) & (22.6) The date, and time for opening of the Technical Bids online are:  
(A) Technical Bid  
*[Insert date]*  
*[Insert time]*  
*[Insert Place]*
- (B) Financial Bid (For qualified bidder as) for opening online  
*[Insert Date]* To be notified by a notice
- (32.1) The amount and validity period of the performance security is:  
Amount : 5% of the contract price  
Validity Period: *[Insert Validity Period]*  
(i) Performance security shall be valid until a date 45 days after the expiry of Defect Liability including Operation and maintenance Period of 5 years after intended completion date.  
(ii) Additional Performance Security for unbalanced Bid shall be valid for 45 days plus intended completion period.

**Signature of Employer/ Authorized Signatory**

**Date :**

### Section 3

#### Qualification Information

The bidder shall fulfil the following qualifying requirements:-

##### FINANCIAL REQUIREMENTS (In case of JV shall be fulfilled by Lead Member)

- The applicant shall have average annual turnover during last 3 years on Construction of Civil / Roads Works not less than 50% of the estimated cost of the project (excluding the maintenance cost of the project) (The estimated cost of the project is *[Insert estimated cost]* excluding operation and maintenance cost)
- Of the last 3 years as mentioned hereinabove, the bidder entity must have earned profit during every year.
- The bidder shall submit Certificate and Audited balance sheet of Financial Turnover as per audited balance sheet of last 3 financial years ending 31st March 2017 duly certified by CA .
- Applicant/Bidder having an average turnover less than 50% of the estimated cost of the project in the relevant field during last three financial years ending March, 2017 shall not be evaluated.
- The Bidder should not have incurred any loss in every year during the last three years ending 31.03.2017

##### TECHNICAL CRITERIA /WORK EXPERIENCE (In case of JV shall be fulfilled by Lead Member)

Experience of having successfully completed similar works during last 05 year ending last day of month previous to the month of opening of Tender Part- I, satisfying either of the following.

1) **Two similar completed works each costing not less than the amount equal to 50% of the estimated cost.**

OR

2) **One similar completed work costing not less than the amount equal to 80% of the estimated cost.**

**Similar Work: Construction of Road /Street/ Junction / Corridor Improvement Work completed in last 5 years.**

- The Bidder shall provide completion certificate to substantiate the experience from client for above mentioned contract assignment criteria.
- Contractor shall have experience of at least 10 years

##### Key Activities (jointly with at least 2 to be fulfilled by the lead member)

Experience in any three of the following categories:

1. Construction of Urban roads/streets of at least 10 kms. or above
2. Construction of Urban drains of at least 15 kms. or above
3. Construction of Junction improvements of at least 04 Nos. or above
4. Construction of Footpaths of at least 15,000 sqm. or above

##### KEY PROFESSIONALS:

| Sr. No. | Name of the person/ Nos. | Qualification | Whether working in field or office | Experience of execution of similar works |
|---------|--------------------------|---------------|------------------------------------|--|
| 1       | 2                        | 3             | 4                                  | 5  |
| 1       | Project Manager (1 Nos)  | B.E. Civil    | Field (fulltime)                   | 15 Years                                 |
| 2       | Project Engineer (1 Nos) | B.E. Civil    | Field (fulltime)                   | 10 Years                                 |
| 3       | Architect                | B. Arch       | Field (fulltime)                   | 5 Years                                  |
| 4       | MEP / Drainage Expert    | Diploma Civil | Field (fulltime)                   | 5 Years                                  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

|   |                         |                      |                  |         |
|---|-------------------------|----------------------|------------------|---------|
| 5 | Site Engineer (2 Nos)   | Diploma Civil        | Field (fulltime) | 5 Years |
| 6 | Site Supervisor (3 Nos) | ITI or Diploma Civil | Field (fulltime) | 5 Years |

(Following information's shall be furnished by the contractor on a non-judicial stamp paper of Rs. 100/- only)

Notes on Form of Qualification Information  
 The information to be filled in by bidders in the following pages will be used for Purposed of post-qualification as provided for in clause 4 of the Instructions to Bidders. This Information will not be incorporated in the Contract. Attach additional pages as necessary.

1. Individual Bidders

|     |  |   |
|-----|--|---|
| 1.1 | Constitution or legal status of Bidder<br><br>Place of registration:<br><br>Principal place of business<br><br>Power of attorney of signatory of Bid   | [attach copy]<br><br>_____<br><br>_____<br><br>[Attach] |
| 1.2 | Total annual volume of civil engineering construction work executed and payments received in the last five years preceding the year in which bids are invited.<br>(Attach certificate from Chartered Accountant) | (Rs. In Lacs)   |



|       |  |
|-------|--|
| 1.3.1 | Work performed as prime Contractor (in the same name and style) on construction works of a similar nature and volume over the last five years. Attach certificate from the Engineer-in-charge. |
|-------|--|

| Project Name | Name of Employer | Description of work | Value of contract | Contract No. | Date of Issue of work order | Stipulated Date of Completion | Actual Date of Completion | Remarks explaining reasons for Delay. if any |
|--------------|------------------|---------------------|-------------------|--------------|-----------------------------|-------------------------------|---------------------------|--|
|              |                  |                     |                   |              |                             |                               |                           |  |

1.3.2 Information on Bid capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid.

**(A) Existing commitments and on-going construction works:**

| Description of Work | Place & State | Contract No & Date | Name & Address of Employer | Value of Contract (Rs. In lakhs) | Stipulated period of completion | Value of works remaining to be completed (Rs. Lakhs) * | Anticipated Date of completion |
|---------------------|---------------|--------------------|----------------------------|----------------------------------|---------------------------------|--|--------------------------------|
| (1)                 | (2)           | (3)                | (4)                        | (5)                              | (6)                             | (7)  | (8)                            |
|                     |               |                    |                            |                                  |                                 |  |                                |

\* Enclose certificate(s) from Engineer(s)-in-charge for value of work remaining to be completed.

**(B) Works for which bids already submitted:**

| Description of Work | Place & State | Name & Address of Employer | Estimated Value of Works (Rs. Lakhs) | Stipulated period of completion | Date when decision is expected | Remarks, if any |
|---------------------|---------------|----------------------------|--------------------------------------|---------------------------------|--------------------------------|-----------------|
| (1)                 | (2)           | (3)                        | (4)                                  | (5)                             | (6)                            | (7)             |
|                     |               |                            |                                      |                                 |                                |                 |

1.4 Availability of Major items of Contractor's Equipment proposed for carrying out the Works. List all information requested below. Refer also to Clause 4.2(d) and Clause 4.4 b (b) of the Instructions to Bidders.

| Item of Equipment | Description, make, and age (Years), and capacity | Condition (new, good, poor) and number available | Owned, leased (from whom), or to be purchased |
|-------------------|--|--|---|
|                   |  |  |   |

1.5 Qualifications of technical personnel proposed for the Contract. Refer also to Clause 4.2(e) of the Instructions to Bidders and Clause 9.1 of Part-1 General Conditions of Contract.

| Position | Name | Qualification | Years of experience |                |       |
|----------|------|---------------|---------------------|----------------|-------|
|          |      |               | Road Works          | Building Works | Other |
|          |      |               |                     |                |       |

1.6 Proposed sub-contractors and firms involved for construction. Refer to Clause 7 of Part I General Conditions of Contract.

| Sections of the Works | Value of subcontract | Sub-contractor (name and address) | Experience in similar work |
|-----------------------|----------------------|-----------------------------------|----------------------------|
|                       |                      |                                   |                            |

1.7 Note: The capability of the sub-Contractor will also be assessed (on the same lines as for the main Contractor) before according approval to him.

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1.8 Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports, etc. List below and attach copies.

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1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.

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1.10 a. Information on current litigation in which the Bidder is involved.

| Name of Other party(s) | Cause of dispute | Litigation where (Court/arbitration) | Amount involved |
|------------------------|------------------|--------------------------------------|-----------------|
|                        |                  |                                      |                 |

1.11 Proposed Program (work method and schedule). Descriptions, drawings, and charts as necessary, to comply with the requirements of the bidding documents.

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CREDIT FACILITIES**

**BANK CERTIFICATE**

This is to certify that M/S -----is a reputed company with a good financial standing.

If the contract for the work, namely, \_\_\_\_\_is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. \_\_\_\_\_to meet their working capital requirements for executing the above contract.

Signature of Senior Bank Manager .....

Name of the Senior Bank Manager .....

Address of the Bank.....

Stamp of the Bank

**Note:** Certificate should be on the letterhead of the bank

**Under Taking From bidders to Invest minimum 10% of the Value of the work.**

**Name of Work :-** .....

It is to be certified that I have Rs. .... In Cash, Rs. .... in Bank and Rs..... by other sources with proceed with the proposed work.

**Date :-**

**Place :-**

**Signature of Contractor**

## **Section 4 Conditions of Contract**

### **Part – I General Conditions of Contract**

These conditions are subject to the variations and additions set out in Part II Special Conditions of Contract

#### **Notes on Conditions of Contract:**

The Conditions of Contract, read in conjunction with Part II Special Conditions of Contract and the Contract Data and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

The form of Conditions of Contract that follows has been developed for smaller measurements contracts for construction on the basis of international practice and the practice of the Government of India, and considerable experience in different States in India in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The Conditions of Contract also incorporate the concept of performance-based payments for routine maintenance of road and junctions.

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## Section 4

### Part I General Conditions of Contract

#### A. General

##### 1. Definitions

1.1 Terms, which are defined in the Contract Data, are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

**Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.

**Compensation Events** are those defined in Clause 40 hereunder.

The **Completion Date** is the date of completion of the Works as certified by the Engineer, i.e 12 months from the date of signing of contract and Operation and maintenance for 60 months.

The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in Clause 2.3.

The **Contract Data** defines the documents and other information, which comprise the Contract.

The **Contractor** is a person or corporate body whose Bid to carry out the Works, including routine maintenance, has been accepted by the Employer.

The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.

The **Contract Price** is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.

**Days** are calendar days; **months** are calendar months.

A Defect is any part of the Works not completed in accordance with the Contract.

The **Defects Liability Certificate** is the certificate issued by Engineer, after the Defect Liability Period has ended and upon correction of Defects by the Contractor.

The **Defects Liability Period including Operation and Maintenance** is five year calculated from the Completion Date.

Drawings include calculations and other information provided or approved by the Engineer for the execution of the Contract.



The **Employer** is the party as defined in the Contract Data, who employs the Contractor to carry out the Works, including Routine maintenance,. The Employer may delegate any or all functions to a person or body nominated by him for specified Functions.

The **Engineer** is the person named in the Contract Data (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Engineer) who is responsible for supervising the execution of the Works and administering the Contract.

**Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.

The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time.

**Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.

**Plant** is any integral part of the Works that shall have a mechanical, electrical, electronic, chemical, or biological function.

The **Site** is the area defined as such in the Contract Data.

**Site Investigation Reports** are those that were included in the bidding documents and are reports about the surface and subsurface conditions at the Site.

**Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

The **Start Date** is given in the Contract Data. It is the date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

A **Sub-Contractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the construction work in the Contract, which includes work on the Site.

**Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.

A Variation is an instruction given by the Engineer, which varies the Works.

The Works, as defined in the Contract Data, are what the Contract requires the Contractor to construct, install, maintain, and turn over to the Employer. Routine maintenance is defined separately.

## **2. Interpretation**

- 2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about these Conditions of Contract.
- 2.2 If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (1) Agreement,
  - (2) Notice to Proceed with the Work,
  - (3) Letter of Acceptance,
  - (4) Contractor's Bid,
  - (5) Contract Data,
  - (6) Special Conditions of Contract Part II,
  - (7) General Conditions of Contract Part I,
  - (8) Specifications,
  - (9) Drawings,
  - (10) Bill of Quantities, and
  - (11) Any other document listed in the Contract Data.

## **3. Language and Law.**

- 3.1 The language of the Contract and the law governing the Contract are stated in the Contract Data.

## **4. Engineer's Decisions**

- 4.1 Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer. However, if the Engineer is required under the rules and regulations and orders of the Employer to obtain approval of some other authorities for specific actions, he will so obtain the approval.
- 4.2 Except as expressly stated in the Contract, the Engineer shall not have any authority to relieve the Contractor of any of his obligations under the contract.

**5. Delegation**

5.1 The Engineer, with the approval of the Employer, may delegate any of his duties and responsibilities to other people, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.

**6. Communications**

6.1 All Certificate, notices or instructions to be given to the contractor by Employer / Engineer shall be sent on the address or contact details given by the contractor in Section 6- Form of Bid. The address and contact details for communication with the Employer/ Engineer shall be as per the details given Contract Data to GCC. Communications between parties that are referred to in the conditions shall be in writing. The Notice sent by Facsimile (fax) or other electronic means shall be effective on confirmation of the transmission. The Notice sent by Registered post or Speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service.

**7. Subcontracting**

7.1 The contractor may subcontract part of the construction work with the approval of the Employer in writing, upto 25% of the contract price but will not assign the Contract. Subcontracting shall not alter the contractor's obligations.

7.2 Beyond what has been stated in clauses 7.1, if the contractor proposes sub contracting any part of the work during execution of the works, because of some unforeseen circumstances to enable him to complete the work as per terms of the contract, the Employer will consider the following before according approval:

- a. The Contractor shall not sub-contract the whole of the works.
- b. The Contractor shall not sub-contract any part of the work without prior consent of the Employer. Any such consent shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any his sub-contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents and workmen.

7.3 The Engineer should satisfy himself before recommending to the Employer whether

- a. The circumstances warrant such sub-contracting: and
- b. The sub-contractor so proposed for the work possess the experience, qualification and equipment necessary for the job proposed to be entrusted to him in proportion o the Quantum of works to be sub-contracted.

**7. Other Contractors**

7.1 The contractor shall co-operate and share the site with other contractors. Public authority's utilities and the employer between the dates given in the schedule of other contractors, as referred to in the contract data. The contractor shall also provide facilities and services for them as described in the schedule. The

employer may modify the schedule of other contractor, and shall notify the contractor of any such modification.

- 7.2 The contractor should take up the work in convenient reaches as decided by the Engineer to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other contractors till the completion of the works.

## **8. Personnel**

- 8.1 The Contractor shall employ for the construction work and routine maintenance the technical personnel named in the Contract Data or other technical persons approved by the Engineer. The Engineer will approve any proposed replacement of technical personnel only if their relevant qualifications and abilities are substantially equal to or better than those of the personnel stated in the Contract Data.

- 8.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the Works in the Contract.

- 8.3 The Contractor shall not employ any retired Gazetted officer who has worked in the Engineering Department of the State Government and has either not completed two years after the date of retirement or has not obtained State Government's permission to employment with the Contractor.

## **9. Employer's and Contractor's Risks**

- 9.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks that this Contract states are Contractor's risks.

## **10 Employer's Risks**

- 10.1 The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in the Employer's country, the risks of war, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), natural calamities and contamination from any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Contractor's design.

## **11. Contractor's Risks**

- 11.1 All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks, referred to in clause 11.1, are the responsibility of the Contractor.

## **12. Insurance**

- 12.1 The Contractor at his cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the date of completion, in the amounts and deductibles stated in

the Contract Data for the following events which are due to the Contractor's risks:

- a) loss of or damage to the Works, Plant and Materials;
- b) loss of or damage to Equipments;
- c) loss of or damage to property (except the Works, Plant, Materials, and Equipments) in connection with the Contract; and
- d) Personal injury or death.

13.2 Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the completion date/ Start Date. All such insurance shall provide for compensation to be payable in Indian Rupees to rectify the loss or damage incurred.

13.3 (a) The Contractor at his cost shall also provide, in the joint names of the Employer and the Contractor, insurance cover from the date of completion to the end of defect liability period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:  
(a) Personal injury or death.

13.4 (b) Insurance policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the completion date/ start date. All such insurance shall provide for compensation to be payable in Indian Rupees.

13.5 Alterations to the terms of insurance shall not be made without the approval of the Engineer.

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

#### **14. Site Investigation Reports**

14.1 The Contractor, in preparing the Bid, may rely on any Site Investigation Reports referred to in the Contract Data, supplemented by any other information available to him, before submitting the bid.

#### **15. Queries about the Contract Data**

15.1 The Engineer will clarify queries on the Contract Data.

#### **16. Contractor to Construct the Works**

16.1 The Contractor shall construct, and install and maintain the Works in accordance with the Specifications and Drawings.

16.2 The contractor shall construct the works with intermediate technology, i.e., by manual means with medium input of machinery required to ensure the quality of works as per specifications. The contractor shall deploy the equipment and machinery as given in Contract Data.

#### **17. The Works to Be Completed by the Intended Completion Date**

17.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

#### **18. Approval by the Engineer**

18.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to

the Engineer, who is to approve them.

18.2 The Contractor shall be responsible for design of Temporary Works.

18.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.

18.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

## **19. Safety**

19.1 The Contractor shall be responsible for the safety of all activities on the Site.

## **20. Discoveries**

20.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

## **21. Possession of the Site**

21.1 The Employer shall handover complete or part possession of the site to the Contractor 7 days in advance of construction program. At the start of the work, the employer shall handover the possession of at-least 75% of the site.

## **22. Access to the Site**

22.1 The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:

- a. The Engineer
- b. The Employer
- c. The Ministry of Rural Development, Government of India.

## **23. Instructions**

23.1 The Contractor shall carry out all instructions of the Engineer, which comply with the applicable laws where the Site is located.

## **24. Dispute Redressal System**

24.1.1 If any dispute or difference of any kind what-so-ever shall arises in connection with or arising out of this Contract or the execution of Works or maintenance of the Works there under, whether before its commencement or during the progress of Works or after the termination, abandonment or breach of the Contract, it shall, in the first instance, be referred for settlement to the competent authority, described along with their powers in the Contract Data, above the rank of the Engineer, The competent authority shall, within a period of forty-five days after being requested in writing by the Contractor to do so, convey his decision to the Contractor. Such decision in respect of every matter so referred shall, subject to review as hereinafter provided, be final and binding upon the Contractor. In case the Works is already in progress, the Contractor shall proceed with the execution of the Works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid, with all due diligence.

24.2 Either party will have the right of appeal, against the decision of the competent authority, to the arbitration if the amount appealed exceeds rupees one lakh.

## **25 Procedure for Resolution of Disputes**

25.1.1 The Competent Authority mentioned in clause 24.1 shall give a decision in writing within 45 days of receipt of a notification of a dispute.

25.1.2 Either party may refer a decision of the Competent Authority to Arbitration within 28 days of the Competent Authority's written decision. Arbitration shall be under the Arbitration and Conciliation Act 1996. If neither party refers the dispute to Arbitration within the above 28 days, the Competent Authority's decision will be final and binding.

25.1.3 The Arbitration shall be conducted in accordance with the following procedure, in case Initial Contract Price is more than Rs. 5 Crore or the Contractor is a Foreign Contractor, who has bid under ICB:-

(a) In case of a decision of the Competent Authority in a dispute or difference arising between the Employer and a Contractor relating to any matter arising out of or connected with this Agreement, the matter will be referred to an Arbitral Tribunal. The Arbitral Tribunal shall consist of three Arbitrators, one each to be appointed by the Employer and the contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties and shall act as presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the presiding Arbitrator shall be appointed by the Chairman of the Executive Committee of the Indian Roads Congress.

(b) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) above within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the Chairman of the Executive Committee of the Indian Roads Congress shall appoint the arbitrator.

A certified copy of the order of the Chairman of the Executive Committee of the Indian Roads Congress, making such an appointment shall be furnished to each of the parties.

(c) The decision of the majority of arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the Arbitral Tribunal. However, the expenses incurred by each party in connection with the preparation, presentation etc. of its proceedings as also the fees and expenses paid to the arbitrator appointed by such party or on its behalf shall be borne by each party itself.

25.2 Where the Initial Contract Price as mentioned in the Acceptance Letter is Rs. 5 Crore and below, disputes and differences in which an Adjudicator has given a decision shall be referred to a sole Arbitrator. The sole Arbitrator would be appointed by the agreement between the parties; failing such agreement within 15 days of the reference to arbitration, by the appointing authority, namely the Chairman of the Executive Committee of the Indian Road Congress.

25.5 Arbitration proceedings shall be held at *[Insert Name of City]*, India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.

25.6 Performance under the contract shall continue even after reference to the arbitration and payments due



to the contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.

## **B. TIME CONTROL**

### **26. Programme**

- 26.1 Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works, along with monthly cash flow forecasts for the construction of works.
- 26.2 The Contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/equipments being placed in field laboratory and the location of field laboratory along with the Program. The Engineer shall cause these details to be verified at each appropriate stage of the program.
- 26.3 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.
- 26.4 The Contractor shall submit to the Engineer for approval an updated Program at intervals of *60 Days* no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Program within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.
- 26.5 The Engineer's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Engineer again at any time. A revised Program shall show the effect of Variations and Compensation Events.

### **27 Extension of the Intended Completion Date**

- 27.1 The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining Works, which would cause the Contractor to incur additional cost.
- 27.2 The Engineer shall decide whether and by how much time to extend the Intended Completion Date within 21 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

### **28. Delays Ordered by the Engineer**

- 28.1 The Chief Executive Officer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totaling more than 30 days will require prior written approval of the

Employer.

## **29. Management Meetings**

29.1 The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans for the Works.

29.2.1 The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.

## **C. QUALITY CONTROL**

### **30. Identifying Defects**

30.1. The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

### **31 Tests**

31.1 For Carrying out mandatory tests as prescribed in the specification. The Contractor shall establish field laboratory at the location decided by Engineer. The field laboratory will have minimum equipment as specified in the Contract Data. The contractor shall be solely responsible for :

- a. Carrying out the mandatory tests prescribed in the Specifications, and
- b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.

31.2 If the Engineer instructs the Contractor to carry out a test not specified in the Specification/ Rural Roads Manual to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples.

32. Correction of Defects noticed during the Defect Liability Period for five year.

32.11 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion of work. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

32.1.2 Every time notice of Defect/Defects is given, the Contractor shall correct the notified Defect/Defects within the duration of time specified by the Engineer's notice.

### **32.2. The RFI system will be followed for execution of work.**

### **33. Uncorrected Defects**

33.1 If the Contractor has not corrected a Defect pertaining to the Defect Liability Period under clause 32.1.1 and of these Conditions of Contract, to the satisfaction of the Engineer, within the time specified in the

Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount, on correction of the Defect.

#### **D. COST CONTROL**

##### **34. Bill of Quantities**

34.1 The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning, maintaining works, and lump sum figures for yearly routine maintenance for each of the five years separately, to be done by the Contractor.

34.2 The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item for the construction of road and junctions. The payment to the Contractor is performance based for routine maintenance of road and junctions.

##### **35. Variations**

35.1 The Engineer shall, having regard to the scope of the Works and the sanctioned estimated cost, have power to order, in writing, Variations within the scope of the Works he considers necessary or advisable during the progress of the Works. Such Variations shall form part of the Contract and the Contractor shall carry them out and include them in updated Programs produced by the Contractor. Oral orders of the Engineer for Variations, unless followed by written confirmation, shall not be taken into account.

##### **36. Payments for Variations**

36.1 If rates for variation items are specified in Bill of Quantity, the contractor shall carry out such work at the same rate. This shall apply for variation only up to the limit prescribed in the contract data. If the variation exceeds this limit, the rates shall be derived under the provision of clause 36.3 for quantities (higher or lower) exceeding the deviation limit.

36.2 If the rates for Variation are not specified in the Bill of Quantities, the Engineer shall derive the rate from similar items in the Bill of Quantities.

36.3 If the rate for Variation item cannot be determined in the manner specified in Clause 36.1 or 36.2, the Contractor shall, within 14 days of the issue of order of variation work, inform the Engineer the rate which he proposes to claim, supported by analysis of the rates. The Engineer shall assess the quotation and determine the rate based on prevailing market rates within one month of the submission of the claim by the Contractor. As far as possible, the rate analysis shall be based on the standard data book and the current schedule of rates of the district public works division. The decision of the Engineer on the rate so determined shall be final and binding on the Contractor.

### **37. Cash Flow Forecasts**

37.1 When the Program is updated, the Contractor shall provide the Engineer with an updated cash flow forecast.

### **38. Payment Certificates**

38.1 The payment to the contractor will be as follows for construction work:

The Contractor shall submit to the Engineer fortnightly/ monthly statements of the value of the work executed less the cumulative amount certified previously supported with detailed measurement of the items of work executed in measurement books authorized by UP. P.W.D.

- (b) The Engineer shall check the Contractor's fortnightly/monthly statement within 14 days and certify the amount to be paid to the Contractor.
- (c) The value of work executed shall be determined, based on measurements by the Engineer.
- (d) The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
- (e) The value of work executed shall also include the valuation of Variations and Compensation Events.
- (f) The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- (g) The Payment of final bill shall be governed by the provisions of clause 50 of GCC.

### **39. Payments**

39.1 Payments shall be adjusted for deductions for advance payments security deposit, other recoveries in terms of the Contract and taxes at source, as applicable under the law. The Engineer shall pay the Contractor the amounts he had certified within 15 days of the date of each certificate.

39.2 The Employer may appoint another authority, as specified in the Contract Data (or any other competent person appointed by the Employer and notified to the contractor) to make payment certified by the Engineer.

39.3 Items of the Works for which no rate or price has been entered in the Bill of Quantities, will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

### **40. Compensation Events**

40.1 The following shall be Compensation Events unless they are caused by the Contractor

- a) The Engineer orders a delay or delays exceeding a total of 30 days.
- b) The effects on the Contractor of any of the Employer's Risks.

40.2 If a Compensation Event would prevent the Works being completed before the Intended Completion Date, the Intended Completion

Date shall be extended. The Engineer shall decide whether and by how much the Intended Completion Date shall be extended.

**41. Tax**

41.1 With reference to the circular no 962/9-2017-81J/17 dated 17.10.2017 from Govt. of Uttar Pradesh, the GST amount is to be reimbursed to the contractor separately and other than actual invoice amount. And hence, contractor will submit invoice by showing the actual amount and GST amount separately. The actual amount to be paid as per the rule stated in RFP and the GST amount to be reimbursed as per the circular.

**42. Currencies**

All payments will be made in Indian Rupees.

**43. Security Deposit/ Retention and Release of Performance Security and Security Deposit/ Retention.**

43.1 The Employer shall retain security deposit of 5% of the amount from each payment due to the Contractor until completion of the whole of the construction Work. No. security deposit/ retention shall be retained from the payments for Routine maintenance of Works.

43.2 On the completion of the whole of the construction Work half the total amount retained as Security Deposit is repaid to the contractor and half when the defect liability period including operation and maintenance has passed and the Engineer has certified that all defects notified by the Engineer to the contractor before the end of his period have been corrected.

43.3 The additional performance security for unbalanced bids as detailed in Clause 51 of Conditions of Contract is repaid to the contractor when the construction work is complete.

43.4 The performance security equal to the five percent of the contract price in Clause 51 of Conditions of contract is repaid to the contractor when the period of five years fixed or defect liability period including operation and maintenance is over and the Engineer has certified that the contractor has satisfactorily carried out the Works.

43.5 If the contractor so desires then the Security Deposit can be converted into any interest bearing security of schedule commercial bank in the name of the Employer or National Saving Certificates duly pledged in favor of the Employer for Defect Liability Period including Operation and Maintenance.

**44. Liquidated Damages**

44.1 The Contractor shall pay liquidated damages to the Employer at the rate per week or part thereof stated in the Contract Data for the period that the Completion Date is later than the Intended Completion Date. Liquidated damages at the same rate shall be withheld if the Contractor fails to achieve the milestones prescribed in the Contract Data. However, in case the Contractor achieves the next milestone the amount of the liquidated damages already

withheld shall be restored to the Contractor by adjustment in the next payment certificate. The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's other liabilities.

- 44.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate.

#### **45. Advance Payment**

45.1 The Employer will make the following advance payment to the contractor against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a Commercial bank acceptable to the Employer in amounts equal to the advance payment:

- a. Mobilization advance up to 5 percent of the contract price.
- b. Equipment advance up to ninety percent of the cost of the new equipment brought to the site, subjects to a maximum of 10 percent of the contract price.

The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest will not be charged on advance payment.

- 45.2 The Contractor is to use the advance payment only to pay for Equipment, plant and mobilization expenses required specifically for execution of works. The Contractor shall demonstrate the advance payment as been used in this way by supplying copies of invoices or other documents to the Engineer.

- 45.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor for the construction work, following the schedule of completed percentage of the work on payment basis. No account shall be taken of the advance payment or the repayment in assessing valuation of work done. Variations, price adjustments, Compensation events or liquidated damages.

#### **46. Securities**

- 46.1 The Performance Security equal to five percent of the contract price and additional security for unbalanced bids shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the form given in the Contract Data and by a scheduled commercial bank. The Performance Security shall be valid until a date 45 days from the date of expiry of Defect Liability Period including Operation and Maintenance and the additional security for unbalanced bids shall be valid until a date 45 days from the date of issue of the certificate of completion.

#### **47. Cost of Repairs**

- 47.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at his cost if the loss or damage arises from the Contractor's acts or omissions.

## **E. FINISHING THE CONTRACT**

### **48. Completion of Construction and Maintenance**

48.1 The contractor shall request the Engineer to issue a certificate of completion of the construction of the works, and the Engineer will do so upon deciding that the works is completed.

### **49. Taking Over**

49.1 The Employer shall take over the works within seven days of the Engineer issuing a certificate of completion of works.

### **50. Final Account**

50.1 The contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the contract within 21 days of issue of certificate of completion of construction of works. The Engineer shall issue a defect liability including Operation and Maintenance certificate and certify any payment that is due to the correct and complete. If the account is not correct or complete, the engineer shall issue within 42 days a schedule that states the scope of the corrections or additions that are necessary. If the account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the contractor and issue a payment certificate within 28 days of receiving the Contractor's revised account. The payment of final bill for construction of works will be made within 14 days thereafter.

50.2 In case the account is not received within 21 days of issue of Certificate of Completion as provided in clause 50.1 above, the engineer shall proceed to finalize the account and issue a payment certificate within 28 days. The payment of final bill for construction of works will be made within 14 days thereafter.

### **51. Operating and Maintenance Manuals**

51.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the Contract Data.

51.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

### **52. Termination**

52.1 The Employer may terminate the Contract if the Contractor causes a fundamental breach of the Contract.

52.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:

- a) The Contractor stops work for 28 days when no stoppage of work is shown on the

- current program and the stoppage has not been authorized by the Engineer;
- b) The Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
  - c) The Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
  - d) The Contractor does not maintain a Security, which is required;
  - e) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in clause 44.1;
  - f) The Contractor fails to provide insurance cover as required under clause 13;
  - g) If the Contractor, in the judgment of the Employer, has engaged in the corrupt or fraudulent practice in competing for or in executing the Contract. For the purpose of this clause, "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value to influence the action of a public official in the procurement process or in Contract execution. "Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid process at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
  - h) if the Contractor has not completed at least thirty percent of the value of construction Work required to be completed after half of the completion period has elapsed;
  - i) if the Contractor fails to set up a field laboratory with the prescribed equipment, within the period specified in the Contract Data; and
  - j) Any other fundamental breaches as specified in the Contract Data.
  - k) if the Contractor fails to deploy machinery and equipment or personnel as specified in the contract Data at the Appropriate time.
- 52.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 52.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

### **53. Payment upon Termination**

- 53.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done and Materials ordered less liquidated damages, if any less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the Contract Data. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered from the security deposit, and performance security. If any amount is still left unrecovered it will be a debt payable to the Employer.
- 53.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the Contract, and less taxes due to be deducted at source as per applicable law.

### **54. Property**

- 54.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer for use for completing balance construction work if the Contract is terminated because of the Contractor's default, till the Works is completed after which it will be transferred to the Contractor and credit, if any, given for



its use.

## **55. Releases from Performance**

- 55.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of the Employer or the Contractor, the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

## **F. OTHER CONDITIONS OF CONTRACT**

### **56. Labour**

- 56.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labor, local or other, and for their payment, housing, feeding and transport.
- 56.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labor from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

### **57. Compliance with Labour Regulations**

- 57.1 During continuance of the Contract, the Contractor and his sub Contractors shall abide at all times by all existing labor enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labor law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labor law in future either by the State or the Central Government or the local authority. Salient features of some of the major labor laws that are applicable to construction industry are given in Appendix to Part I General Condition of Contract. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.
- The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

### **58. Drawings and Photographs of the Works**

- 58.1 The contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and

lastly after the completion of the work. No separate payment will be made to the contractor for this.

58.2 The Contractor shall not disclose details of Drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under clause 58.1, shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his sub-Contractors without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

**59. The Apprentices Act 1961**

59.1 The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

**60. Criminals are prohibited from bidding**

60.1 Any bidders having **criminal record** is not allowed to participate in the bidding process. Any person who is having criminal cases against him or involved in the **organized crime or gangster activities or Mafia or Goonda or Anti social activity** are strictly prohibited to participate in the bidding process. If it is established that any bidder has **criminal record, his bid shall be automatically cancelled.**

60.2 The bidder has to produced character certificate, Solvency certificate, self declared affidavit (on the prescribed Performa which is attached with the bid document) etc., issued by the competent authority in original with bid document.

61. Any bidder who is an Advocate and Registered with any State Bar Council Shall not be allowed to participate in the bidding. If it is established that the contractor is registered with the state bar council, **his bid shall be automatically cancelled.**

## Contract Data to General Conditions of Contract

Except where otherwise indicated, the Employer prior to issuance of the bidding documents should fill in all Contract Data. Schedules and reports to be provided by the Employer should be annexed.

### Clause Reference

Items marked "N/A" do not apply in this Contract.

1. The Employer is:  
*[Insert Executing Agency's Authorized Representative]*  
*[Insert Contact No.]* [Cl.1.1]  
*[Insert Email address]*
2. The Intended Completion Date for the whole of the Works is One Year after start of work. [Cl.1.1,17&27]
3. The Site is located: *[Insert Name of City]*
4. The Start Date shall be same days after the date of issue of the Notice to proceed with the work. [Cl.1.1]
5. The works shall, inter-alia, include the following, as specified or as directed.  
**(A) Road and Junction Improvement**

Site clearance; setting-out and layout; widening of existing carriageway and strengthening including camber corrections; construction of new road bituminous pavements remodeling/construction of junctions, intersections, supplying and placing of drainage channels, flumes, guard posts & other related items; construction/extension of cross drainage works, bridge, approaches and other related items; road markings, road signs and kilometer/hectometer stones; protective works for roads/bridges; all aspects of quality assurance of various components of the works; rectification of the Defects in the completed works during the Defects Liability Period; submission of "As-built" drawings and any other related documents; and other item of work as may be required to be carried out for completing the works in accordance with the Drawings and provisions of the contract to ensure safety and planting of trees along the roads.

### Clause Reference

5. Section completion is [Cl 2.2]
6. The following documents also form part of the Contract: [Cl.2.3(11)]
7. (a) The law which applies to the Contract is the law of Union of India. [Cl.3.1]  
 (b) The language of the Contract documents is English. [Cl.3.1]
8. The Schedule of Other Contractors is attached. [Cl. 8.1]

9. A. The Technical Personnel for construction work are:

[Cl. 9.1]

| <b>Sr. No.</b> | <b>Name of the person/ Nos.</b> | <b>Qualification</b> | <b>Whether working in field or office</b> | <b>Experience of execution of similar works</b> |
|----------------|---------------------------------|----------------------|---|---|
| <b>1</b>       | <b>2</b>                        | <b>3</b>             | <b>4</b>                                  | <b>5</b>  |
| 1              | Project Manager (1 Nos.)        | B.E. Civil           | Field (fulltime)                          | 15 Years  |
| 2              | Project Engineer (1 Nos.)       | B.E. Civil           | Field (fulltime)                          | 10 Years  |
| 3              | Architect (1 Nos.)              | B. Arch              | Field (fulltime)                          | 5 Years   |
| 4              | MEP / Drainage Expert (1 Nos.)  | Diploma Civil        | Field (fulltime)                          | 5 Years   |
| 5              | Site Engineer (2 Nos.)          | Diploma Civil        | Field (fulltime)                          | 5 Years   |
| 6              | Site Supervisor (3 Nos.)        | ITI or Diploma Civil | Field (fulltime)                          | 5 Years   |

For field testing laboratory

| <b>Technical Personnel</b>             | <b>Number</b> | <b>Experience in Road Works</b>  |
|--|---------------|--|
| A. Diploma holder in Civil Engineering | 2             | Minimum 5 years of Experience in Testing and Quality control in Road Work. |
| B. Lab Assistant/Technical (ITI/B.Sc)  | 4             | Minimum 2 years of Experience in maintenance of plant & machinery.         |
| E. Surveyor                            | 2             | Minimum 2 years of Experience in testing                                   |

B. For routine maintenance

| <b>Technical Personnel</b>             | <b>Number</b> | <b>Experience in Road Works</b> |
|--|---------------|---------------------------------|
| A. Diploma holder in Civil Engineering | 1             | At least 2 years                |
| B. Diploma holder in Civil Engineering | 2             | At least 2 years                |

13(a) Amount and deductible for insurance are:

[Cl. 13.1]

| <b>Item</b>   | <b>Amount to be insured</b> | <b>Deductibles</b>                                      |
|---|-----------------------------|---|
| A. Loss of or damage to the works, Plants and materials | 10 % of contract value      | Deductibles for insurance shall be as per latest tariff |

|    |  |   |  |  |
|----|--|---|--|--|
| B. | Loss of or damage to equipments  | 2.5 % of contract value                   |  | of General Insurance Company of India plus 20% of premium amount for items A, B, C & D |
| C. | Loss of or damage to property (except the works, plant, Materials, and Equipment) in Connection with the contract: | 1 % of contract value                     |  |  |
| D. | Personal injury or death   | Up to contract value Rs. 2 Crores         | Rs. 2 lacs per occurrences for maximum three occurrences |  |
|    |  | For contract value more than Rs. 2 Crores | Rs. 2 lacs per occurrences for maximum three occurrences |  |

13(b) Amount and deductible for insurance are:

[Cl. 13.3 (a)]

| Item |                          | Amount to be insured                   | Deductibles  |
|------|--------------------------|--|--|
| A.   | Personal injury or death | Rs. 2 Lacs for one occurrence per year | Deductibles shall be as per latest tariff of General Insurance Company of India plus 20% of the premium amount |

14. Site investigation report

[Cl.14.1]

As available with Executive Engineer.....

15. The key equipments/machinery for construction of works shall be:

| S.No. | Name of Equipments / Machinery                       |
|-------|--|
| 1.    | Tar Boiler   |
| 2.    | Mixture (For Mortar)                                 |
| 3.    | Concrete Mixture                                     |
| 4.    | Water Tanker   |
| 5.    | Diesel Road Roller (8-10 Ton Capacity)               |
| 6.    | Vibratory Roller                                     |
| 7.    | Tendum Vibratory Roller (Compactor)                  |
| 8.    | Tractor  |
| 9.    | Truck  |
| 10.   | Hot mix plant 75 MTH capacity                        |
| 11.   | Air compressor                                       |
| 12.   | Mechanical Broom                                     |
| 13.   | Bitumen Distributor/Mechanical sprayer               |
| 14.   | Tipper   |
| 15.   | J.C.B.   |
| 16.   | Precast concrete moulds for Jersey Barrier and Kerbs |

|     |  |
|-----|--|
| 17. | Pumpset  |
| 18. | Equipments for cleaning drains i.e Spade, Pickaxe etc. |

[Cl.16.2]

16. Competent authorities are: [Cl. 24.1]

*[Insert Executing Agency's Authorized Representative]*

17. (a) The period for submission of the program for approval of Engineer shall be TEN days from the issue of Letter of Acceptance. [Cl.26.1]

(b) The updated program shall be submitted at interval of 60 days.

[Cl. 26.3]

(c) The amount to be withheld for late submission of an updated program shall be Rs. 10,000=00 per day for contract value up to 2 Crore and Rs. 20,000=00 per day for contract value above Rs. 2 Crores. [Cl. 26.3]

18. The key equipment for field laboratory shall be :

| S.No | Name Of Equipment            | Quantity |
|------|------------------------------|----------|
|      | As Per IRC : SP : 20-2002    |          |
|      | Appendix 10.1& 10.2 Or Morth |          |
|      |                              |          |
|      |                              |          |

19. (a) The quantities mentioned in the BOQ may vary as per the actual site conditions and execution of works.

(b) No increase in rates of any items specified in Bill Of Quantity is allowed due to variation in quantities. [Cl 36.1]

20. The authorized person to make payments is *[Insert Name of Executing Agency's Authorised Representative]*

[Cl 39.2]

21. (a) Milestone to be achieved during the contract period.

(1) 1/8<sup>th</sup> of the value of entire contract work up to 1/4<sup>th</sup> of the period allowed for completion of construction.

(2) 3/8<sup>th</sup> of the value of entire contract work up to 1/2<sup>nd</sup> of the period allowed for completion of construction.

(3) 3/4<sup>th</sup> of the value of entire contract work up to 3/4<sup>th</sup> of the period allowed for completion of construction.

(b)

|   |  |
|---|--|
| Amount of liquidated damages for delay in completion of works | For whole of work 1 percent of the initial contract price, rounded off to the nearest thousand, per week |
|---|--|

(c)

|  |  |
|--|--|
| Maximum limit of liquidated damages for delay in completion of work. | 10 percent of the initial contract price rounded off to the nearest thousand |
|--|--|

[Cl 44.1]

22. The standard form of performance security acceptable to the employer shall be an unconditional Bank Guarantee of the type as presented in the Bidding Documents. [Cl 46.1]
23. (a) The Schedule of operating and maintenance manuals N.A [Cl 51.1]
- (b) The date by which “as-built” drawings (in scale as directed) in 2 sets are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be (including L-section and cross section of the road) [Cl 51.1]
24. The amount to be withheld for failing to supply “as-built” drawings by the date required is Rs. One Lac. [Cl 51.2]
25. (a) The Period for setting up a field laboratory with the prescribe equipment is 7 (Seven) days from the days from the date of notice to start work [Cl 51.2.(i)]
- (b) The following events shall be fundamental breach of contract: “The Contractor has contravened Clause 7.1 and Clause 9 Of Part I General Condition Of Contract” [Cl 51.2.(j)]
26. The Percentage to apply to the value of the work not completed representing the Employer’s additional cost for the completing the works shall be 20% [Cl 53.1]

## **Appendix to Part I General Condition of Contract**

### **SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.**

- a) Workmen Compensation Act 1923: - The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) Payment of Gratuity Act 1972: - Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days'(say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
- c) Employees P.F. and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:
  - i. Pension or family pension on retirement or death as the case may be.
  - ii. Deposit linked insurance on the death in harness of the worker.
  - iii. Payment of P.F. accumulation on retirement/death etc.
- d) Maternity Benefit Act 1951: - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) Contract Labor (Regulation & Abolition) Act 1970: - The Act provides for certain welfare measures to be provided by the Contractor to contract labor and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labor.
- f) Minimum Wages Act 1948: - The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Constructions of buildings, roads, runways are scheduled employment.
- g) Payment of Wages Act 1936: - It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) Equal Remuneration Act 1979: - The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- i) Payment of Bonus Act 1965: - The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j) Industrial Disputes Act 1947: - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) Industrial Employment (Standing Orders) Act 1946: - It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get these certified by the designated Authority.
- l) Trade Unions Act 1926: - The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) Child Labor (Prohibition & Regulation) Act 1986: - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labor is prohibited in building and construction industry.



- n) Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979: - The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Traveling expenses from home up to the establishment and back etc.
- o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: - All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) Factories Act 1948: - The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons Or more with aid of power or another prescribed minimum (say, 20) or more persons without The aid of power engaged in manufacturing process.
- q) Arbitration and Conciliation Act, 1996: - The Act lays down the procedure for appointment of Arbitrator, Arbitration and conciliation, Jurisdiction of Arbitral Tribunals, Recourse against Arbitral award appeals.

**Section 4**  
**Conditions of Contract**  
**Part – II Special Conditions of Contract**

1. Contractors are advised to inspect the site of work before tendering.
2. All the works shall be carried out as per [Insert name of State] PWD. and INTACH Toolkit specifications/ detailed specification and instruction of Engineer-in-charge.
3. The conditional tender shall be liable to rejected.
4. Hiding of any information by contractor will result in rejection of his tender.
5. The quantities are liable to vary on either side to any extent as per actual requirement of work for which no claim whatsoever by the contractor shall be entertained.
6. Job mix for all granular and bituminous works will have to be got prepared from reputed institute as directed by Engineer-in-charge and submitted for approval by competent authority. The entire ingredient required for job mix will be collected and sealed in presence of Engineer-in-charge and sent for preparation of job mix. If during execution of work there is change in grading of stone Aggregate, fresh job mix is to be got prepared.
7. Payment of all bituminous works- will be made on the basis of least quantity Arrived as by the following method:-
  - (I) Volume of bituminous work will be calculated by taking levels before and after the execution of particular activity at regular grids as prescribed by *[Insert name of State]* PWD.
  - (II) Mix in each tipper will be taken at contractors cost and divided by the actual average field density of the stretch of each day of work and deemed volume will be arrived at. However, the contractor must note that density of any point should not be less than the permissible limit with respect to job mix.
8. Any recovery imposed by Technical Audit cell or by higher authority will be deducted from contractors running final bills during execution of works and will be adjusted from performance security if final bill is processed during defect liability period including Operation and Maintenance.
9. All the defects appeared' during execution of work will have to be rectified as directed by Engineer in charge within shortest possible time. During defect liability period contractor will be deploy sufficient technical staff as mention in contract document for, proper maintenance of work. If contractor fails to attend the defects, within reasonable time period, the same will be attended by department and all expenses so incurred will be adjusted from performance security of contractors.
10. The contractor will adopt PERT to complete the project in time. A detailed program and weekly working program will have to be submitted by contractor regularly.
11. Contractor shall procure Bitumen from Indian Oil Corporation, Hindustan Petroleum and shall produce the original C.R.C. issued by the company at the time of claiming the payment for bitumen and get reconciled against consumption in each running bill. If bitumen brought by the contractor is less than the calculated quantity arrived at by the measured quantity of works, the difference in such quality will

be deducted from contractor's bill.

12. For earth work, each borrow pit will have get to be approved from competent authority by furnishing all physical/chemical characteristic of earth of each borrow pit before start of work. The contractors are advised to survey the area to ascertain the availability of earth before tendering.

## SECTION 5

### **Introduction**

*[Insert Profile and Smart City Vision]*

**NAME OF WORK:**

**Urban Revitalization of Roads and Junction Improvement Project**

**1.1 OBJECTIVE**

Urban Revitalization of Roads and Junction Improvement project focuses on the urban design of the existing road sections as per the existing typology of the prevailing activity and traffic. It also constitutes the proposal of strategic improvement of the overall traffic movement with an aim to reduce congestion and friction in mobility.

Streets perform certain basic functions in the built environment such as providing routes for people vehicles and public transport, and accommodating utility services and drainage systems. The design of a street affects how successful it is in performing these functions, and it can also vitally affect the urban character of a neighbourhood and influence how people use the street and interact with each other on it. The quality of a street and its connections can affect whether people choose to walk or cycle, or take the car. It can affect whether people feel safe. Thus the character of the street needs to be developed in such a way so that along with the functions which it has to perform, such as safety, accessibility and connectivity, other purposes such recreational activities, resting places, interactive neighbourhood, and so on are also encouraged. Under the current project, the main streets/the identified stretches along main roads in the ABD area in *[Insert name of smart city]* adding up to a total length of *[Insert Length] km\**, have been taken up to the above aspects of usable and pedestrian friendly streets. It is proposed to undertake the work of redesigning of the street, retrofitting of footpath and road, placemaking on road, junction redesigning etc amongst other improvements on the street.

*[\*Insert Roads and specific improvements determined, inventory to be prepared by the Municipal Corporation]*

The careful assessment of the area has identified the prevailing issues and variation in the type of traffic movement based on the visitor inflow and the activities in the area.\*\* The proposal establishes a prioritization of traffic modes in the area and introducing street features based on the prevailing movement scenario. It identifies the pedestrian priority areas in the subject areas and proposes relevant street infrastructure. The proposed design considers the visitor convenience, universal access, local coherence and service integration on the iconic streets of the old city.

*\*\*Surveys to establish geotechnical investigation and topographical survey, existing traffic survey, pedestrian survey, informal sector and road condition will need to be designed and conducted by Municipal Corporation]*

Enhancing the urban scenario, imparting a uniform and organized character on horizontal street surfaces in order to balance the heterogeneity on the vertical façade of the streets is the soul concept of the project.

**1.2 SETTING**

*[Insert City Profile]*

**2. CONTEXT**

*[Insert Context and Focus for Selection of Smart Roads Projects such as urban design, redevelopment, retrofitting, underground ducting etc]*

**Figure 1:** *[Insert ABD Area Map]*

## SCOPE OF PROJECT

As mentioned above, with an objective of providing user friendly streets, the following tasks are proposed to be undertaken through the current project:

*[Insert/Modify Scope as needed; guiding text provided below]*

### 1. Footpath retrofitting:

Footpaths are those parts of a road or street that are intended for pedestrian use. Pedestrians include people on foot, in wheel chairs, or pushing a pram. It is therefore important that footpaths are wide enough for unhindered, unobstructed use by all user groups – including disabled users. There must be a functional pedestrian through-route on a footpath. Thus the footpath needs to retrofit so as to accommodate different type of users without any stumbling block. It is proposed to widen the footpaths as per the detailed cross sections provided with this document and providing user friendly and aesthetically appealing surface finish to the footpath alongwith the kerbs, shifting of utility boxes, provisions for new utilities etc.

### 2. Place making on roads

Placemaking is both a process and tool, by which we collectively design and manage elements of the public realm to create places that are appealing, accessible, comfortable, and support social activity. Placemaking helps to define the pattern and use of the built environment and the manner and ease in which people are able to access, connect and move around in it. Placemaking can also help build and enhance sense-of-place by creating spaces that encourage social interaction and support interesting activities. Such spaces will be created to achieve the objective of social development.

### 3. Junction redesigning on pilot basis:

Junction design and related engineering counter measures play a very important (but not only) role in the field of traffic safety. By creating a properly designed street junction, vehicle flow can be improved while simultaneously increasing pedestrian comfort and safety. Thus Junction redesigning becomes one of the important project for execution.

To achieve the above tasks, the following items are proposed to be undertaken in the project.

1. Footpath reconstruction/ retrofitting with new kerb, new approved stamped concrete/paver block surfacing, parking spaces, provision of separate RCC type utility ducts (1.5 X 1.5 m ) with opening after every 8 to 10 m interval to house current and future utilities.

2. Shifting and provision of new utility lines like water supply, sewer alongwith the chambers and electrical cables, feeder pillars, decorative street light poles etc.

4. Removal of the ramps, walls, compounds etc on the ROW of the road and complete retrofitting of the footpaths.

### 4. Provisions

The junctions under the scope of this project are mentioned below;

- *[Insert name of Executing Agency]* to identify junctions and segments

*[Insert map showing important road stretches and the area of intervention under the project]*

*[Insert details and rationale for prioritization of proposed road and junction improvements]*

These roads comprise of the some main roads connecting the junctions under the scope of work and other are the internal roads of the area under the scope of study as discussed above. Some of the major wide roads connecting the important junctions under the scope of work are mentioned below:

*[Insert names of roads marked for Improvement]*

The project scope comprises the reorganization of the spaces along the road and introducing urban design features onto the road facilitate the pedestrian/visitor movement as well as the other activities taking place on the road. The redesigned section of the road is as per the carrying capacity and the existing traffic circulation of the road. The various features of the proposal are stated further;

- Construction/modification of the junctions as per the design
- Provision of design features on the junctions such as table top crossing, kerbs as per turning radius, yellow box junctions etc.
- Construction of pathways along the roads and provide roads as per the lanes and carriage-way as per the proposal, Paving the pedestrian pathways as per the design.
- Provision of lay-by along the roads as per the design
- Provision of medians as per the design
- Provision of light-poles on the pathways as per the plan
- Provision of street furniture such as benches, dust-bins etc.
- Provision of visitor facilities as per the plan such as information kiosk, drinking water kiosks, bio-toilets etc.
- Provision of other features such as bollards, ramps for physically challenged, landscaping features, plantations with tree-guards etc.

Apart from the urban revitalization of the roads and junctions, the project also includes the setting up of a traffic movement scheme in the subject area. This traffic scheme has been developed in order to improve the traffic movement scenario, drastically reduce congestion on the roads, further reducing the pollution and environment degrade in the area, improve the functionality of the roads and streets. The proposed scheme of the traffic movement has been developed in context with the proposed designs of the roads and junctions which makes it important to establish this movement scheme and concept.

The features of the traffic scheme has been described further.

*[Insert Traffic Management Plan during construction]*

*[Guiding Text below; modify based on PMC discussions with MC]*

During construction works for road improvement plan of the major and minor road stretches *[Insert names of road stretches where construction related to smart road improvement could lead to congestion]*, there are probabilities of disruption or delay to existing traffic, and resultant inconvenience to road users. There is need to ensure the continued effective function of the carriageway during such works for which necessary plan and traffic management measures are to be prepared and implemented during construction activities. This document outlines broad scope of activities to be undertaken by the contractor:

1. To conduct *(one-way movement – map enclosed)* trial run on the identified stretches of road in ABD area.



2. To prepare traffic management plan during construction of road network including special arrangement for special days/festive season.

The contractor is required to submit a structured approach for the development of a traffic management strategy which shall be considered, to minimize delay and inconvenience for road users during construction of road alignment.

The contractor shall be responsible for the control, guidance in direction of traffic movement and protection of all road and pedestrian traffic along the entire road improvement stretch, which may be affected by carrying out of the Works, and would manage all such traffic to minimise any delays and disruptions to vehicular and pedestrian access and the movement of road traffic. These plan/strategies need to be discussed and approved by the Traffic Police, Nagar Nigam and other relevant authorities before implementation on ground.

The contractor shall ensure the effects of works on the control, direction and management of traffic, in view to:-

- promote the continuous, safe and efficient movement of traffic;
- maintain the traffic carrying capacity of Affected Road; and
- minimise any delays and disruptions to traffic and the movement of traffic.

The contractor, during the entire contract duration, will have to develop, implement, maintain and update the

- Traffic Management Plan to include details, as a minimum, of:
- road user safety;
- proposed traffic arrangements to manage users, including vehicular, cyclist, pedestrian and rickshaws on Affected Roads;
- access arrangements for residents, local businesses and their customers and other organisations;
- influence of Special Events/festive season and other events of a public interest on road capacity;
- any impacts on road structures;
- incident, accident or emergency contingency plans;
- arrangements for construction vehicle parking
- parking requirements – alternate arrangements (if required) to be discussed with authorities
- control long term on-street parking of vehicles and guide them to the designated parking areas
- Enforce the one way movements on the selected roads in a stringent manner.
- Cease traffic management activities as and when requested by the client or the *[Insert name of smart city]* Traffic Police.
- Update the Traffic Management Plan in accordance of the site requirement.
- Trial run to be conducted for the one-way movement for the identified stretch.

## **TRAFFIC MANAGEMENT**

The Traffic Management Plan strategy involves various activities or staging of construction activities. The required detail in the plan depends on the complexity of the work and on the conflicts between traffic and the work. The contractor's technical team would be required to understand the complexity of the traffic management plan during construction. The Traffic management plan shall also include, but not be limited to, such items as pedestrian walkway, signages, application and/or removal of pavement markings, roadway lighting, methods and devices for delineation, channelization and placement with careful strategy drawn out against project plan for construction activities.



**Figure 1: Objectives of Traffic Management Plan**

**TRAFFIC MANAGEMENT PLAN**

The traffic management plan to be prepared for (1) during construction activities and (2) trial run for proposed one way movement.

During construction traffic management plan should include:

- Road user safety
- Traffic flow
- Reduction in delay
- Access Arrangement for adjoining properties
- Pedestrian and Cyclist
- Parking for construction vehicles
- Incident Management & Emergency Response Plan
- Notices and Community participation
- Special Event Traffic Management Plan
- Impact on Structures
- During construction hardware in terms of signages, traffic furniture is required at critical locations. Some of the traffic furniture have been listed below

|   |
|---|
| Standard Traffic Cone   |
| Barricades  |
| Traffic Torch   |
| Direction Blinkers  |
| Lighting (bulb on barricade)  |
| Signage poles   |
| Pedestrian path railing (wherever space permits) otherwise traffic cones and taping for pedestrian path |

Signs that shall be used at the construction site and the carriageways are as provided in the figure given below, and not limited to only the provided signs but also all the relevant signs used during construction activities and blockages along roadways. Any new signage or line marking developed specifically for the project will be subject to GoM approval before implementation.



Figure 2: Sample signage's

Trial run to be carried for the identified stretch as shown in the figure below, which includes section from

- *[Insert Road Names where Trial Run will be conducted]*

*[Insert map showing planned traffic movement during trial runs]*

Following points to be considered:

The trial run to be carried out for at least *[Insert Number of weeks]* weeks' time preferably on the normal days (when there is no major religious activities planned along the Ghats and temples).

Before implementing the trial run, the contractor should prepare a plan of action which needs to be approved from the client and Traffic Police.

The Traffic management scheme will be published in the newspapers and handouts will be distributed to inform the local public of the area, starting at least 2 days prior to the first test run day.

Traffic signages needs to be installed at strategic locations as discussed by Traffic police. Following traffic signages to be installed (but not limited to):

|    |                                |
|----|--------------------------------|
| 1  | No Parking                     |
| 2  | Short term Parking Area        |
| 3  | Informatory Signage            |
| 4  | Temporary diversion signages   |
| 5  | No Entry                       |
| 6  | No Standing & Stopping         |
| 7  | Speed Limit                    |
| 8  | Under construction Zone        |
| 9  | Bus and heavy vehicles timings |
| 10 | Cycle & Pedestrian Only        |
| 11 | Compulsory Left                |
| 12 | Compulsory Right               |
| 13 | Stop                           |

|    |                     |
|----|---------------------|
| 14 | Pedestrian crossing |
| 15 | U Turn              |
| 16 | Signage at Junction |

Along with signages, contractor would also provide bollards/traffic cones/barricade to manage/channelize the traffic at critical locations.

Contractor has to assist traffic police by deploying sufficiently trained traffic marshals to regulate the traffic.

The project focuses on the appropriate design of the prominent junctions in the ABD (Area Based Development) area so as to improve the traffic circulation on the junctions and thus reducing the congestion. The improved design of the junctions as well as the proposed movement scheme of the roads will greatly impact the traffic movement scenario in the entire ABD area.

### 3.1 Stakeholders

The subject area is a significant part of the physical character and the built fabric of the area which is renowned the world over for its cultural richness and heterogeneous character. Improvement of the mobility and traffic in the scope area is very significant work for the area and therefore it was important to identify the issues and challenges by interacting with the stakeholders in the area.

The project has been developed with consequent interaction with stakeholders which are majorly the board governing the smart city projects, govt. departments and organizations active in the area. Thereby, proposed design and the features related to it has been discussed at the administrative levels of the city.

Furthermore, it is important to maintain the integrity of the project so that the consent and inferences at these interaction levels remain valid. The important stakeholders of the project are mentioned hereby:

- Nagar Nigam, *[Insert name of smart city]*
- *[Insert name of smart city]* Development Authority
- *[Insert name of State]* P.W.D
- Jal Nigam
- Jal Sansthan/Pollution Control Board
- Police Department (Traffic)
- Electricity Board
- IPDS

It is the prerogative of the working organization to retain the objectives and duties of these departments and organizations in the course of the project and find a mitigating way in the scenario of any issue or challenge arising during the implementation period.

### 3.2 Challenges

*[Insert Context specific challenge and opportunities; Guiding Text below]*

The challenges which shall be dealt with during the course of the project are mostly related to the eccentricity of the space and the lack organized infrastructure. There have been various interferences in the subject area related to the infrastructure through a long period of time, majority of which had not done with adequate planning and documentation methods. Therefore, mentioned challenges are foreseen in the execution of the project.

- Non- contextual and unplanned services laid in the streets and roads.
- Lack of the space and dense settlements in the internal parts of the subject area.
- Congestion of space due to high density of moving traffic.
- Extreme congestion and high inflow of tourists and visitors in peak season and festival times.

- Water-logging in the rainy-season, lack of appropriate storm water drainage system.
- Vehicular Domination in the key connecting roads.
- Non Co-ordinated Development
- Development leading to loss of character
- Lack of Infrastructure

### 3.3 Opportunities

- Improved local participation.
- Resourcefulness in manpower deployment
- Low share of four-wheeled vehicles in the subject area.
- Boost in the Tourism

## 4. PROPOSAL / FEED BACK INCORPORATED

*[Insert relevant and project specific information]*

The final design proposal is a result of technical interactive sessions in stakeholder and review meetings conducted between technical experts involving Town and Country Planning organization, NIUA, INTACH and competent consulting firms. Traffic Police department represented by the S.P., has been a key stakeholder and feedback from there has been duly incorporated in the final proposal, specially the proposed movement scheme for the subject area. The design of the junctions, urban street section and looking at the applicability of the proposed movement scheme to be ensured by executing a trial run (under the scope of work) is a part of the feedback incorporation.

The urban street features shall follow the design toolkit developed by INTACH, thereby the proposals and material specifications suggested by them in the toolkit regarding the urban design features have been incorporated in the final design proposal.

## 5. Special Instructions for Work Execution

The proposed work on the roads and junctions needs to be done in context with the existing conditions and specially the already running services of the road. The organic development pattern in the subject area has led to a mix of unplanned services which are not very well recorded and documented in the official records. As the proposed work has to be done at the same road section which is a medium for all the other existing services to be laid there are all chances to find these services causing obstacle in the proposed works. Therefore, in this situation the following points should be considered;

- The contractor should execute the work causing minimum interference to the existing services in the road and should adopt a method which keeps the interest of the proposed works and does not obstruct or affect the existing network related services, in co-ordination with the respective expert of the PMC.
- It is the responsibility of the contractor to execute the work, including excavation of earth and laying new elements or services as per the proposed design, in conjunction with the existing services over and below the ground level. These service lines majorly are, the underground electrical transmission lines and the feeder pillars installed by IPDS, the underground water-supply lines running along or crossing the roads, drainage lines or storm-water lines on the roads, optical or data network lines on the roads, gas supply lines or any other related transmission lines. It is the prerogative of the contractor to execute the proposed works with minimum disturbance to these lines, and wherever there tends to be any interference to this existing network, the contractor shall re-align or re-construct the disturbed line so as to keep the network in working condition in the same manner. Consequently, the related works in order to re-align or repair the existing network of services, the related items can be brick-masonry, concrete work, PCC of approved specifications; precast concrete pipes, G.I., UPVC, cast iron pipes, optical fibre cables, telephone data cables, electrical cables and the required medium to hold them as per the existing approved specifications used by IPDS and other agencies involved; furthermore other required peripherals as required.
- Contractor has to inform the line(concerned) department immediately if any underground services are found hindering the work and further any re-alignment or damage of the services has to be repaired as per instruction from line department.
- Any hindrance in the work due to above mentioned works cannot be the basis of extension of deadline or increase in the cost of the project.
- The contractor needs to be more careful with the existing services in the internal streets of the subject area. No major deviation or interference should be done in the existing services of the internal streets and only localized flaws can be undertaken to be corrected in co-ordination with the line(concerned) department and the supervision team. Any major deviation from the plan shall be reported immediately to the Architect/Engineer incharge of the PMC. The integral character of the internal streets, specifically those laid in chunar-stone has to remain the same, therefore no such methods to be adopted which may change or degrade the original character of the chunar-stone streets.
- It is integral for the contractor to consider the required quantity and the respective amount incurred related to the existing services interfered or essential services required (only related to existing scenario) so as to execute the project related work.

**6. CONCEPT DESIGN**

6.1 Full set of drawings

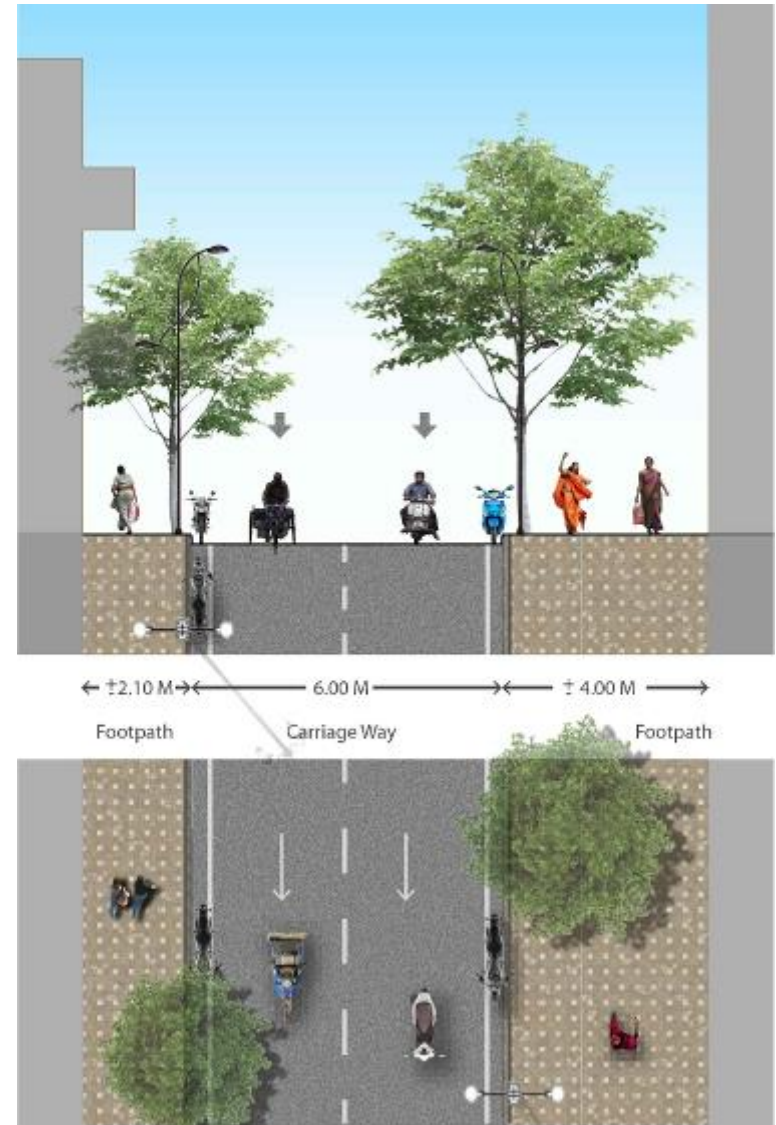
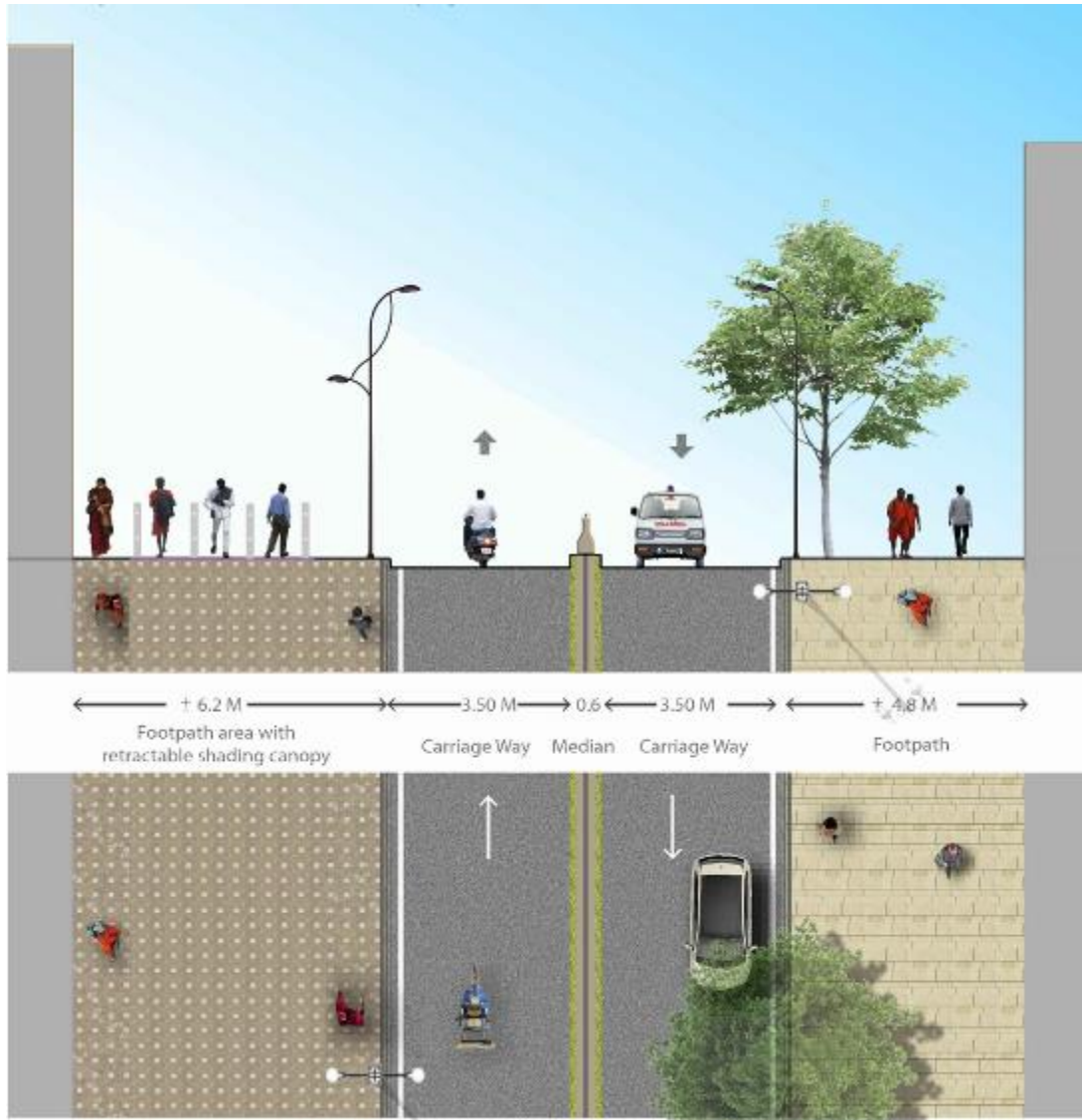
The list of the drawings has been specified below, followed by the set of drawings.

| <b>S.No.</b> | <b>Drawing Title</b>         | <b>Dwg no.</b>                 |
|--------------|------------------------------|--------------------------------|
| 1            | <i>[Insert Drawing Name]</i> | <i>[Insert Drawing Number]</i> |
| 2            |                              |                                |
| 3            |                              |                                |
| 4            |                              |                                |
| 5            |                              |                                |
| 6            |                              |                                |
| 7            |                              |                                |
| 8            |                              |                                |

*[Insert Drawing 1]*  
*[Insert Drawing 2]*  
*[Insert Drawing 3]...*

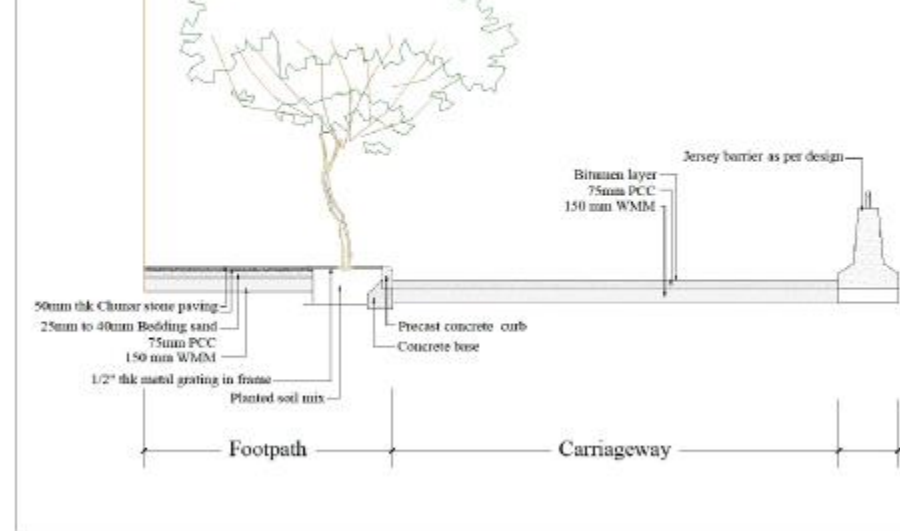


*[Proposed Improvements for different ROWs]*

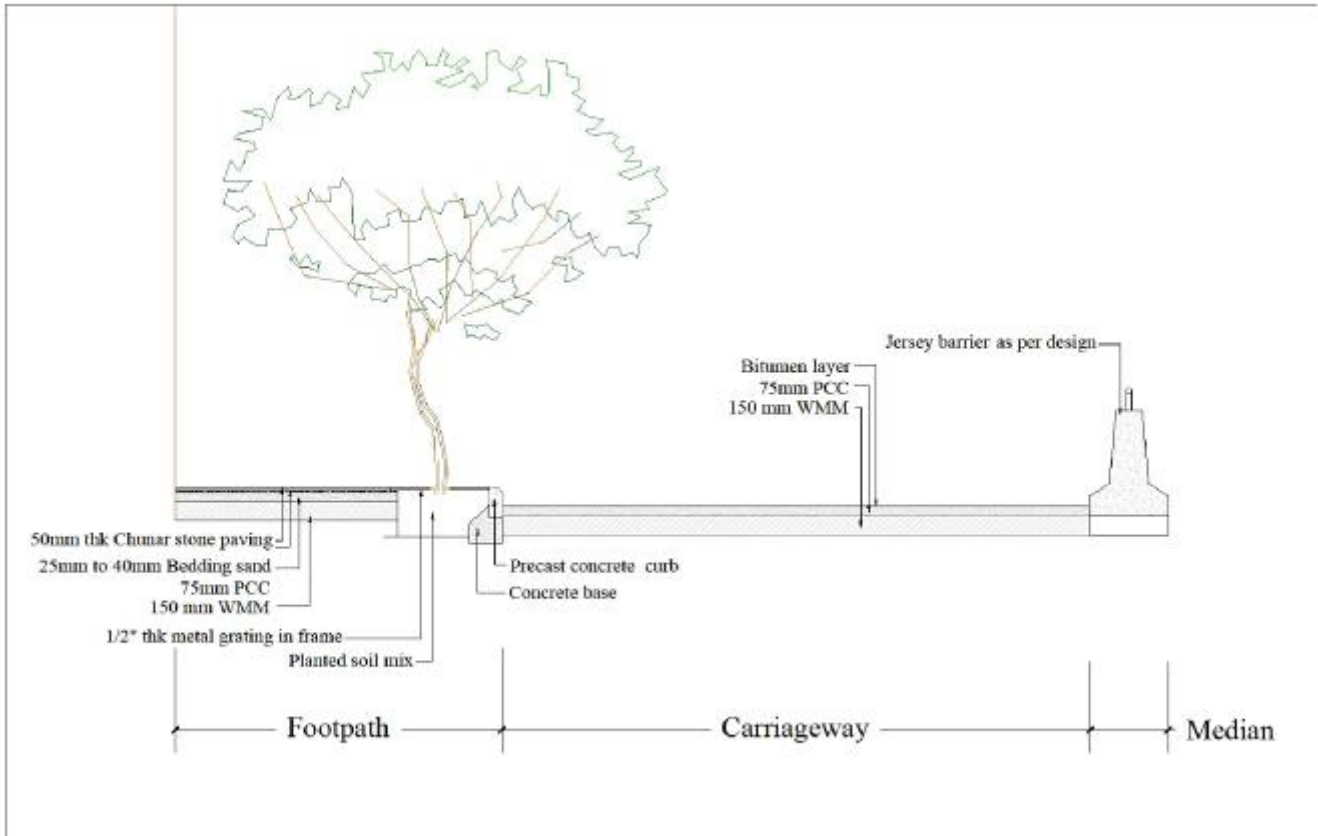




$\pm 7.2$  M      4.50 M       $\pm 5.8$  M  
 Pedestrian area with retractable shading canopy      Shared surface      Pedestrian area



[Proposed building materials]



## 7.2 Material Specification

- All the works shall be carried out as per specification for Road and Junctions work Detailed UPPWD Specification, DSR 2016 and Tool kit of INTACH

### MARKET RATE SPECIFICATION

#### 1. Coloured and textured flooring

##### a) Material

Concrete flooring shall be coloured and textured imprinted cast in place as per drawings, applying finishing on the top surface in accordance with sprinkling of colour hardener at the rate of 2.7 kg./sq.mt. Floating the surface application of release agent, stamping the concrete with stamping tools, cleaning the surface with water jet (next day) and application of acrylic based sealer for finishing all complete as per directions of the Engineer-in-Charge. The work includes providing and laying avg. 75 to 100 mm thick M30 grade BMC / RMC concrete using 420 kg of cement per cum. of concrete including well compaction, necessary finishing top surface, side supports, leveling, pumping, curing, compound etc. all complete in direction of engineer in charge.

##### b) Workmanship

Work shall include all labour sundries and T & P etc. as required for proper execution of work.

##### c) Measurements

Length, breadth of the Cast in place flooring surface shall be measured correct to 0.1 meter and the area shall be calculated in SQM correct to two places of decimal. The measurement of Cast in place flooring shall be in Sqm.

#### 2. Tremix Concrete Flooring

##### a) Material

Tremix concreting (grade M-25) surface shall be 50 mm thick with broom finish as per specified pattern design including mixing of concrete including nonmetallic floor hardener hard wearing, abrasion Resistant [make:- Dr fixit (Piditop 333)/ Fosroc/ Cippy or equivalent] @ 5 kg. per sqm Confirming to ASTM: C944, BS: 1881:Part116, IS:1237 and including of Cutting of grooves at of 8-10mm width and 24mm depth & filling of grooves with backup rod polysulphide sealant etc complete. Tremix Concrete to be cut neatly & the joints shall be filled with polysulphide sealant [make: - DrFixit (PidisealPS43 grey)/ Fosroc/ Cippy or equivalent]. Including vacuum dewatering from concrete mix by vacuum dewatering Pump including cost of BMC / RMC concrete required for proper completion of work as directed by engineer-in-charge. Note- All sealants to be used should have VOC content not more than 250 grams/liter as per GRIHA criterion 26.

##### b) Workmanship

Work shall include all labour sundries and T & P etc. as required for proper execution of work.

##### c) Measurements

Length, breadth of the Tremix flooring surface shall be measured correct to 0.1 meter and the area shall be calculated in SQM correct to two places of decimal. The measurement of Tremix flooring shall be in Sqm.

#### 3. Cobble Stone flooring

##### a) Material

Granite Cobble Stone Flooring (stone block size 150X150X150mm) shall be of Stone Laid on 100 mm thick P.C.C. 1:4:8 with Filling of joints in 1:3 Cement Mortar Pointing with matching colour pigments

all complete specification & direction of Engineer in charge.

**b) Workmanship**

Work shall include all labour sundries and T & P etc. as required for proper execution of work.

**c) Measurements**

Length, breadth of the Cobble stone flooring surface shall be measured correct to 0.1 meter and the area shall be calculated in SQM correct to two places of decimal. The measurement of Cobble Stone flooring shall be in Sqm.

**4. Sand Stone Bench**

**a) Material**

Providing & fixing Sand Stone single piece slab ornamentals bench without back size 1500X 450X450, with 100 mm thick stone legs of approved design pattern (shape) and specifications including cement concrete 1 :2 :4 (20 mm graded stone aggregate) grouting with Stone bench base 150 mm Extra Grouted in Concrete (450X450X450)mm, all materials, labour and Tools & Plants etc. required for proper completion of work including finishing etc. all Complete as per the design, drawings and as directed by Engineer - in -Charge. Providing & fixing Sand Stone single piece slab ornamentals bench without back size 1500X 450X450, with 100 mm thick stone legs of approved design pattern (shape) and specifications including cement concrete 1 :2 :4 (20 mm graded stone aggregate) grouting with Stone bench base 150 mm Extra Grouted in Concrete (450X450X450)mm, all materials, labour and Tools & Plants etc. required for proper completion of work including finishing etc. all Complete as per the design, drawings and as directed by Engineer - in -Charge.

**b. Workmanship**

Work shall include all labor sundries and T & P etc. as required for proper execution of work.

**c. Measurements**

The measurement of Benches shall be in Nos.

**5. Sand Stone Dustbin (BOQ Ref – G/32)**

**a) Material**

Providing and fixing sand stone Dustbins in 75 mm thick Size 450 X450 X600 red sandstone with jali and carving properly shaped as per design of approved size, quality and standard specifications with removable metal bin 14 gauge with handles & powder coated inside properly fixed to stone body all materials, labour and Tools & Plants etc. required for proper completion of work including Painting & finishing grouting etc. all Complete as per the design, drawings and as directed by engineer - in -charge.

**b. Workmanship**

Work shall include all labor sundries and T & P etc. as required for proper execution of work.

**c. Measurements**

The measurement of waterproofing shall be in Nos.

**6. Street Furniture (BOQ Ref – G/33 – G/44)**

**a) Material**

A) Providing of Stainless Steel Pole Mounted Single Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or equivalent model no. OZ-UF-DB-22-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm

and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc. all complete in direction of engineer in charge.

- B) Providing& fixing of Stainless Steel Pole Mounted Double Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or equivalent model no. OZ-UF-BB-33-D) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc. all complete in direction of engineer in charge.
- C) Providing& fixing of Stainless Steel Bench (Make Ozone/ Jindal/ J.C.Decaux or equivalent model no. OZ-UF-BN-11) Size L=1800mm, W=676mm, H=866mm with made by 304 grade stainless steel 28 tubes= 16mmOD and 50mm OD support size including 3mm thick 3 profiled flats with 2 legs made of 1.6mm sheet fixed with the help of grade push fit component with hairline finish including grout in cement concrete block etc. all complete in direction of engineer in charge.
- D) Providing& fixing of Stainless Steel 4 seater tubular Bench (Make Ozone/ Jindal/ J.C.Decaux or equivalent model no. OZ-UF-BN-22 ) Size L=1736mm, W=500mm, H=810mm (Seat size 400x400)mm & 1.6mm thick sheet, tube of OD 38mm of thickness 1.5mm , backrest support tubes of 1.5mm thick tube of 32mm OD and 2 legs made of 1.6 mm thick sheet welded to profiled base plate of 3 mm thick sheet, option of simply floor placed and floor mounted with dash fasteners including grout in cement concrete block etc. all complete in direction of engineer in charge.
- F) Providing & fixing of Stainless Steel floor mounted Bollards (Make Ozone/ Jindal/ J.C.Decaux or equivalent model no. OZ-UF-BL-11 ) grade 304, bollards dia 150mm, Base plate Dia 210mm, sheet thickness of 6mm and height 900mm including grout in cement concrete block etc. all complete in direction of engineer in charge.
- G) Providing& fixing of Stainless Steel floor mounted Bollards (Make Ozone/ Jindal/ J.C.Decaux or equivalent model no. OZ-UF-BL-22 ) grade 304, bollards dia 150mm, Base plate Dia 210mm, sheet thickness of 6mm and height 900mm including grout in cement concrete block etc. all complete in direction of engineer in charge.

**b) Workmanship**

Work shall include all labor sundries and T & P etc. as required for proper execution of work.

**c) Measurements**

Items shall be measured in Nos.



## 8. REGULATION

### 8.1 Approval

Before the execution of the work, it is to be ensured that the proposed work is approved by the regulatory authorities such as *[Insert Name of Regulatory Authority]* etc as applicable.

As the subject area is located in a large stretch of area and various line agencies are involved in the road and streets, it is to be ensured that they do not have any objection or issue with the works proposed. Furthermore, in this direction, NOC or an approval certificate can be sought by the line agency involved. As the subject area is *also located close to the Ganga river*, it is to be verified that no pertinent issues are there from the judiciary court (or the NGT as applicable) and if there is any matter subject to court relevant approvals need to be sought before the execution of work.

## 9. WORK PLACE & STAFFING

| Sr. No. | Name of the person/ Nos  | Qualification        | Whether working in field or office | Experience of execution of similar works |
|---------|--------------------------|----------------------|------------------------------------|--|
| 1       | 2                        | 3                    | 4                                  | 5  |
| 1       | Project Manager (1 Nos)  | B.E. Civil           | Field (fulltime)                   | 15 Years                                 |
| 2       | Project Engineer (1 Nos) | B.E. Civil           | Field (fulltime)                   | 10 Years                                 |
| 3       | Architect                | B. Arch              | Field (fulltime)                   | 5 Years                                  |
| 4       | MEP / Drainage Expert    | Diploma Civil        | Field (fulltime)                   | 5 Years                                  |
| 5       | Site Engineer (2 Nos)    | Diploma Civil        | Field (fulltime)                   | 5 Years                                  |
| 6       | Site Supervisor (3 Nos)  | ITI or Diploma Civil | Field (fulltime)                   | 5 Years                                  |

### For field testing laboratory

| Technical Personnel                    | Number | Experience in Road Works   |
|--|--------|--|
| A. Diploma holder in Civil Engineering | 2      | Minimum 5 years of Experience in Testing and Quality control in Road Work. |
| B. Lab Assistant/Technical (ITI/B.Sc)  | 4      | Minimum 2 years of Experience in maintenance of plant & machinery.         |
| E. Surveyor                            | 2      | Minimum 2 years of Experience in testing                                   |

**For routine maintenance**

| Technical Personnel                    | Number | Experience in Road Works |
|--|--------|--------------------------|
| A. Diploma holder in Civil Engineering | 1      | At least 2 years         |
| B. Diploma holder in Civil Engineering | 2      | At least 2 years         |

**10. OPERATION & MAINTENANCE**

The Defect Liability including Operation and Maintenance for this work is 60 months. During this period, it shall be the responsibility of the contractor to clean the area and furniture, tree/shrub cutting, etc at an acceptable serviceability level as directed by the Engineer in charge.

During the Defect Liability period, any damage, breakage, theft or loss in the works executed shall be borne by the contractor only.

During the operation and maintenance period contractor shall provide a supervisor level staff for attending to all the O&M activities during the O&M Period.

For period specified as the “Defect Liability Period” for the work from the date of issuance of the completion certificate in accordance with para "Final Inspection and Acceptance "Contractor shall remain liable for any of the works or parts thereof or equipment and fittings supplied which in the opinion of the Engineer fail to comply with the requirements of the contract or are in any way unsatisfactory or defective.

To the extent that the works and each part thereof shall at or as soon as practicable after the expiry of the above period be taken over by the Engineer in the condition required by the contract to the satisfaction of the Engineer. The Contractor shall finish the work (if any) outstanding at the date of completion as soon as may be practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making good of defects imperfections, shrinkages or other faults as may during the period of maintenance or after its expiry be required of the Contractor in writing by the Engineer as a result of an inspection made by or on behalf of the Engineer prior to the expiry of the period. All such work shall be carried out by the Contractor at his own expenses if the necessity thereof shall in the opinion of the Engineer be due to the use of materials or to the neglect or failure on the part of the Contractor to comply with any obligation expressed or implied on the Contractor's part under the contract. If the Contractor fails to do any such work as entitled to carry out such work in which the Contractor should have carried out at the Contractor's own cost, the Engineer shall be entitled to recover from the Contractor the cost thereof or may deduct the same from the moneys that become due to the Contractor. Notwithstanding the aforesaid, if the Contractor remains in default, one calendar month after the Engineer has given written instructions in writing, the Security Deposit shall become payable to the *[Insert Name of Executing Agency]* who will deduct the cost plus overhead expenses of such works as have been necessary to rectify the Contractor's default and the balance, if any, shall be disbursed. The Contractor shall submit the operation and maintenance manual for the fruitful operation of the works. The Contractor will have a liberty to visit the operating works during the defect liability period including Operation and Maintenance shall satisfy himself about the on-going operations in case he do not visit & a defect is observed then the Engineer's opinion shall be final & binding as to the application of defect liability.



During the operation and maintenance period contractor shall provide a supervisory level staff as mentioned below;

|    | <b>Technical Personnel</b>                       | <b>Number</b> | <b>Experience in Road Works</b> |
|----|--|---------------|---------------------------------|
| 1. | Diploma holder in Civil Engineering (Supervisor) | 1             | At least 5 years                |
| 2. | Diploma holder in Civil Engineering (Asst.)      | 1             | At least 2 years                |

**Other support Staff required during O&M**

|    |                  |   |
|----|------------------|---|
| 1. | Gardener         | 1 |
| 2. | Painter          | 1 |
| 3. | Skilled Labour   | 1 |
| 4. | Unskilled labour | 2 |
| 5. | Sweeper          | 1 |

**10.2 Roads and Public Realm Operation and Maintenance**

O&M activities covered under the project include the following points:

**10.2.1 Sidewalk/Plaza Maintenance -**

**a) Stone paving installation and replacement**

- To replace an individual unit, or an area of paving, one unit needs to be completely removed from the paving. Other units can then easily removed if required.
- Brush off any jointing sand adhering to the edges of the blocks or chip off any mortar adhering to the edges of flags.
- The exposed bedding layer can be floated, trowelled or screeded to prepare it for replacing the paving units. If correcting levels, add or remove bedding material as required.
- After breaking up old pavement, remove and recycle as much as possible.
- Regular visual inspection: It is necessary to observe the non-appearance of new damages in the repaired stone pieces, as well as healthy parts.
- Use same quality stone for paving replacement.
- Pavement will be marked with spacers between stones for future service utility laying (0.9mt. wide). This area shall be only used for laying future services like electricity, OFC, water supply pipe etc unless otherwise instructed at site by site engineer.

**b) Cleaning stone paving-**

- Sandstone paving provides a durable, hard wearing surface, but like any other surfacing material, may suffer from staining. Due to the nature of its construction, vegetation may also grow in the joints, or on the paving itself in shaded areas which remain damp. Regular maintenance and good cleaning practices will enhance the overall appearance of the paving in the long term.
- The cleaning speed should be slow to control the effects that occur.
- The selected method should not produce products that alter the stone items.
- The method chosen should not damage the surface of the piece.

- Any building dirt or leftover reclamation staining may be removed quite satisfactorily with a proprietary cleaning solution, if necessary.
- If necessary, stone paving surfaces may be washed with brush and water or using high pressure hoses. If the latter, care should be taken not to blast away sand in joints. Do not use high pressure jets or suction cleaners for at least 3 months to allow normal detritus build up.

**c) Landscape maintenance**

- During the establishment period all trees and shrubs shall be watered by thorough deep watering at regular intervals.
- All dead trees shall be replaced by same tree species and with same height trees as a healthy one.
- It is to be ensured that the trees and plants after being planted do not get damaged or deteriorate due to the construction works carried out on the site.
- Prune trees and shrubs during the dormant season to facilitate proper growth and sight lines for vehicles and pedestrians.
- Keep basins and planting areas free of weeds. Remove weeds manually or by torch. Use broadcast herbicides only as a last resort and use approved natural herbicides. Avoid application of fertilizer if rain is expected.
- Do not leave leaves, twigs, chips, or other debris in the gutter or paved shoulder.

**10.2.2 Street/Road Repair and Maintenance**

**a) Asphalt/concrete removal**

- Schedule asphalt and concrete removal activities for dry weather.
- After breaking up old pavement, sweep up materials thoroughly to avoid contact with rainfall and storm water runoff. Recycle as much material as possible, and properly dispose of non-recyclable materials

**b) Concrete installation and replacement**

- Avoid mixing excess amounts of fresh concrete or cement mortar on-site.
- Store dry and wet materials under cover, protected from rainfall and runoff.
- Wash out concrete transit mixers only in designated wash-out areas where the water will flow into drums or settling ponds or onto dirt or stockpiles of aggregate base or sand.
- Whenever possible, return left-over materials in the mixer barrel to the yard for recycling.
- Dispose of small amounts of excess concrete, grout, and mortar in the trash.

**c) Patching, resurfacing, and surface sealing**

- Stockpile materials away from streets, gutter areas, storm drain inlets or watercourses. During wet weather, cover stockpiles with plastic tarps or berm around them if necessary to prevent transport of materials in runoff.
- Pre-heat, transfer or load hot bituminous material away from drainage systems or watercourses. Cover and seal nearby storm drain inlets and manholes before applying seal coat, slurry seal, etc. Leave covers in place until job is complete and until all water from emulsified oil sealants has drained or evaporated. Clean any collected materials from these covered manholes and drains for proper disposal.
- After the job is complete, remove stockpiles (asphalt materials, sand, etc.) as soon as possible.

**d) Signing and striping**

- All signage should be checked regularly for any damage.

- The damaged sign boards should be immediately replaced to avoid inconvenience of the users.
- Road markings should be repainted if necessary.

**e) Jersey barrier maintenance**

- The areas around the median/ barrier should be checked for litter, spattering and stains.
- Wet or dry cleaning method must be adopted as required.
- In case of scrapped paint or discoloration due to weather or external factors, the units may be repainted.

**f) Equipment cleaning, maintenance, and storage;**

- Clean equipment including sprayers, sprayer paint supply lines, patch and paving equipment, and mud-jacking equipment at the end of each day. Conduct cleaning at a corporation or maintenance yard if possible. Use proper collection methods for the cleaning solution and recycle or dispose of waste materials at an approved hazardous waste facility.

**10.2.3 Street/Road/Sidewalk Sweeping and Cleaning .**

**a) Sweeping timing and frequency**

- Define the street sweeping program, and set priorities for sweeping frequency based on factors such as traffic volume, land use and get it approved by PMC.
- Establish and maintain a consistent sweeping schedule
- Establish and implement a record-keeping system to evaluate the effectiveness of the sweeping program.

**b) Observations of material accumulation**

- Sweeping equipment operation and selection
- Ensure that equipment operators are operating equipment according to manufacturer's recommendations.
- Maintain equipment in good condition and purchase replacement equipment as needed.

**c) Other measures to improve sweeping efficiency**

- Require operators to report trees or other obstructions interfering with street cleaning.

**10.2.4 Curb Maintenance**

- Deteriorated curb blocks should be removed and replaced with same quality curbs.
- For installing the curb-stones it firstly needs to be outlined where the stones are going to be placed and calculate how much higher of the level of the square the stones are going to be.
- Curb stones should be installed using a water level and following a rope.
- The stones must be secured from the front and behind in joints, which can be done with the help of concrete bedding.
- Preventive maintenance includes regular deck flushing, sealing the joints with waterproofing sealants.
- Painting of curbs if required has to be done as per Traffic police norms during maintenance period.

**10.2.5 Railings maintenance**

- The railings should be visually inspected on a regular basis for any signs of damage, vandalism, breakdown of surface finish, and build-up of salt, dirt or atmospheric residue.
- Painting of railing is to be done for all surfaces where the paint has been removed due to weather or vandalism.

- In addition to the visual inspection, a regular cleaning regime is also required.
- For light scratches / chips where the base material is exposed then a suitable coat should be carefully applied to the defect, followed by a topcoat finish of a matching acrylic based paint or touch up
- Stainless steel finishes should be cleaned as required, with a frequency of at least every three months

### **10.2.6 Lay-byes maintenance**

- The lay-bye markings should be visually inspected for any damage and repainted if necessary
- The changing points at the lay-byes should be inspected regularly and any damage should be quickly attended to.
- It should be ensured that the lay-byes do not get encroached by temporary shops, settlements or obstacles which shall defeat the purpose of the space, in co-ordination with the local traffic police, Nagar Nigam or concerned departments, keeping the supervising team of the PMC informed.

### **10.2.7 Street furniture maintenance**

#### **a) Benches and Dustbins**

- To maximize life expectancy the seating and dustbins should be visually inspected on a regular basis for any signs of damage, vandalism, breakdown of surface finish, build-up of salt, dirt or atmospheric residue, and loose fixings.
- Damaged items shall be replaced if cannot be repaired.
- All cleaning and maintenance should be recorded, detailing the method of cleaning, what products have been used, and what repair work has been undertaken.

#### **b) Lighting**

- Cyclical maintenance intervals for lighting installations should be determined to ensure the installations correct operation and light output, minimize failures and maximize life.
- Lamp replacement policies should be carefully evaluated taking account of local technical considerations.

#### **c) Bio- toilets**

- Ensure use of proper cleaning agents.
- Establish a frequent cleaning schedule for the toilets and keep performance record as approved by PMC.
- Ensure regular inspection of joints and securing arrangements, flushing systems, p/s traps, water tank, etc

#### **d) Vegetation**

- During the establishment period all trees and shrubs shall be watered by thorough deep watering at regular intervals.
- Prune trees and shrubs during the dormant season to facilitate proper growth and sight lines for vehicles and pedestrians.
- Keep basins and planting areas free of weeds. Remove weeds manually or by torch. Use broadcast herbicides only as a last resort and use approved natural herbicides. Avoid application of fertilizer if rain is expected.
- Do not leave leaves, twigs, chips, or other debris in the gutter or paved shoulder.

### **10.2.8 Litter Control**

- Post “No Littering” signs where needed and enforce anti-littering laws.
- Provide an adequate number of litter receptacles in commercial areas and other litter-source areas.
- Empty litter receptacles on a frequent enough basis to prevent spillage.
- Encourage public education efforts to include an anti-littering message.

### **10.2.9 Street art and Graffiti**

- Wall paintings and installations should be consistently checked for damage and vandalization.
- Any damage must be repaired as early as possible.
- Illegal graffiti should be removed using mechanical or chemical removal.
- The surface maybe repainted with contextual designs approved by authorities.

**Section – 6**  
**Form of Bid**

Notes on Form of Bid: The Bidder shall fill in and submit this Bid form with the Bid.

----- (Date)

To

The Chief Executive Officer on behalf of GOVERNMENT OF INDIA, *[Insert name of Executing Agency], [Insert name of smart city]*

**Description of the work :** -----

I/We offer to execute the works described above and remedy any defects their in conformity with the conditions of contract, specifications, drawings, bill of quantities and addenda for

- (b.) For percentage rate **as quoted online in BOQ** percentage below/percentage above/at par with the rate entered in the Schedule of rate, as referred to in clause 13 of ITB.
- 1. We undertake to commence the works on receiving the notice to proceed with work in accordance with the contract documents.
- 2. This Bid your written acceptance of if shall constitute a binding contract between us. We understand that you are bound to accept the lowest or any Bid you receive.

We hereby confirm that this bid complies with the Bid validity and earnest money required by the bidding documents and specified in the Appendix to ITB.

Authorized Signature :- \_\_\_\_\_

Name and title of Signatory:- \_\_\_\_\_

Name of bidder :- \_\_\_\_\_

Authorized Address of Communication:- \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Telephone No(s): (Office) :- \_\_\_\_\_

Mobile No :- \_\_\_\_\_

Facsimile (FAX) No :- \_\_\_\_\_

Electronic Mail Identification (E-mail ID) :- \_\_\_\_\_

## **Section 7**

### **Bill of Quantities Preamble**

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract Specifications and Drawings.
2. For the construction of works, the quantities given in the Bill of Quantities are estimated, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the Bill of Quantities in the case of item rate tenders.
3. The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labor, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out in the Contract.
4. Arithmetic errors will be corrected by the Employer pursuant to Clause 27 of the instructions to Bidders.

| <b>SUMMARY OF PROJECT COST</b>                                       |  |                      |
|--|--|----------------------|
| <b>PROPOSED DEVELOPMENT OF JUNCTIONS, STREETS AND INTERNAL ROADS</b> |  |                      |
| <b>AT – [Insert City Name]</b>                                       |  |                      |
| <b>SR. NO</b>  | <b>DESCRIPTION OF ITEM</b>   | <b>AMOUNT IN Rs.</b> |
|  | <b>Cost of works</b>   |                      |
| 1  | Development of Junctions   |                      |
| 2  | Development of Wide Streets  |                      |
| 3  | Development of Internal Roads (a)                                  |                      |
| 4  | Development of Internal Roads (b)                                  |                      |
|  |  |                      |
| 5  | <b>Operation &amp; Maintenance Cost including defect liability</b> |                      |
|  | 1st year   |                      |
|  | 2nd Year   |                      |
|  | 3rd Year   |                      |
|  | 4th Year   |                      |
|  | 5th year   |                      |
|  | <b>Total</b>   |                      |
|  |  |                      |
|  |  |                      |
| 6  | Add 1% For Labour Cess on Total C                                  |                      |
|  |  |                      |
|  | <b>Grand Total</b>   |                      |
|  |  |                      |



FIRST DRAFT DOCUMENT FOR SMART ROADS

[Insert PWD SOR [Insert name of smart city] Circle]

| BILL OF QUANTITY FOR PROPOSED DEVELOPMENT OF JUNCTIONS  |         |   |          |       |       |        |
|---|---------|---|----------|-------|-------|--------|
| AT. [Insert name of smart city]   |         |   |          |       |       |        |
| BASED ON PWD S.O.R. [Insert name of smart city] CIRCLE [Insert Date]/ DSR [Insert Year] & CURRENT MARKET RATE |         |   |          |       |       |        |
| S.N.  | DSR NO. | DESCRIPTION OF ITEM   | QUANTITY | UNIT  | RATES | AMOUNT |
| 1   |         | Dismantling brick work or stone work in lime or cement mortar and including stacking of materials as directed by Engineer-in-charge within a distance of 60 meters  |          | Cum   |       |        |
| 2   |         | Dismantling reinforced cement concrete or reinforced brick work including stacking of dismantled materials as decided by Engineer-in-charge within a distance of  |          | Cum   |       |        |
| 3   |         | Dismantling cement concrete or brick or grantholithic floors including stacking of dismantled materials as directed by engineer-in-charge within a distance of 60   |          | Sqm   |       |        |
| 4   |         | As in item (697) above but floor to be stone flagged or tiled floor   |          | Sqm   |       |        |
| 5   |         | Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.   |          |       |       |        |
|   |         | Nominal concrete 1:3:6 or richer mix (i/c equivalent  |          | Cum   |       |        |
| 6   |         | Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.  |          | Sqm   |       |        |
| 7   |         | Dismantling tile work in floors and roogs laid in cement mortar including stacking material within 50 meters lead For thickness of tiles above 25 mm and up to 40   |          | Sqm   |       |        |
| 8   |         | Dismantling of girders, trusses and other steel work including stacking of dismantled materials as directed by Engineer-in-charge within a distance of 60 meters  |          | Qtl.  |       |        |
| 9   |         | Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc. Disposal of unservicable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-charge.   |          | Metre |       |        |
| 10  |         | Excavation in foundation in ordinary soil (soil mixed morum shingle kankar/Loam, Clay or sand requiring the use of special tools and plants such a pick axes subbals etc.), including lift upto 1.50 mtr and lead upto 30mtr and including filling watering and ramming of excavated earth into the trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer in charge. upto a distance of 30mtr. from the foundation trenches |          | Cum   |       |        |
| 11  |         | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift   |          | Cum   |       |        |
| 12  |         | Earth work cartage for disposal of surplus earth beyond 20 kms or more including loading, un-loading and cartage etc. all complete in direction of engineer in charge, as per site requirement.   |          | Cum   |       |        |
| 13  |         | Extra for Leveling & Neatly dressed of disposed soil completely as directed by engineer in charge.  |          | Cum   |       |        |
| 14  |         | Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density  |          | Cum   |       |        |

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|    |         |   |  |      |  |  |
|----|---------|---|--|------|--|--|
| 15 |         | Sand filling in plinth including supply of necessary quantity of sand from a distance not exceeding 8 Kms from the side of work and including watering dressing etc. rate to include cost of all material \s, labour and T&P etc. required for proper completion of work.   |  | Cum  |  |  |
| 16 |         | Providing and laying in Cement concrete 1:4:8 (1Cement :4 approved Coarse sand : 8 Coarse Aggregate ) Size of aggregate shall be 4 cm gauge or as approved including supply of all material labour , T&P etc required for proper completion for the work .  |  | Cum  |  |  |
| 17 |         | R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved stone ballast in the proportion 1:1.5:3 (1Cement: 6 aggregate) in Jersey Barrier excluding supply of reinforcement and its bending but including its fixing and binding the same necessary with 24BWG binding wire and including necessary centering and shuttering etc. and also including supply of materials labour and tools and plants etc. required for proper completion of the work, strength of the concrete shall not be less than M.150   |  | Cum  |  |  |
| 18 |         | As in item 17 above but 1:1.5:3 for Slab  |  | Cum  |  |  |
| 19 |         | Mild steel or iron in plain work such as reinforced concrete or reinforced brick work(when not included in overall rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorized overlapping shall be measured.   |  | Qtl. |  |  |
| 20 |         | Brick work with class 150 bricks in foundation & plinth in cement mortar 1: 4 (1 cement : 4 coarse sand) including all materials, labour, proper curing and T & P etc. required for proper completion of work as directed by Engineer - in -charge.   |  | Cum  |  |  |
| 21 |         | Providing and fixing M.S. grills of required pattern in frames of drain grating etc. with M.S. flats, square or round bars etc. including priming coat with approved  |  | Kg   |  |  |
| 22 |         | 12 mm thick cement plaster in single coat of fair side of single or half brick wall for interior plastering up to floor two level including internal rounded angles chamfers, and or rounded angles not exceeding 80 mm, in girth and finshed even and smooth. : 1:3 (1 cement:   |  | Sqm  |  |  |
| 23 | A.R. -5 | Providing & laying coloured and textured imprinted cast in place concrete flooring, applying finishing the top surface, in accordance with sprinkling of colour hardener at the rate of 2.7 kg./sq.mt. Floating the surface application of release agent, stamping the concrete with stamping tools, cleaning the surface with water jet (next day) and application of acrylic based sealer for finishing all complete as per directions of the Engineer-in-Charge. The work includes providing and Laying avg . 75 to 100 mm thick M30 grade BMC / RMC concrete using 420 kg of cement per cum. of concrete including well compaction, necessary finishing top surface, side supports, leveling, pumping, curing, compound etc. all complete in direction of engineer in |  | Sqm  |  |  |

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|    |   |  |     |  |  |
|----|---|--|-----|--|--|
| 24 | Laying Tremix concreting surface with broom finish as per specified pattern design including mixing of concrete hardener @ 5 liters./ sqm in concrete including vacuum dewatering from concrete mix by vacuum dewatering Pump excluding cost of BMC / RMC concrete required for proper completion of work as  |  | Sqm |  |  |
| 25 | Supply of floor hardener non-metallic hard wearing, abrasion Resistant fair top std or Equivalent @ 5 kg. per sqm Confirming to BS 812 : part 3, 1915 & SS 26 : 1970 etc all complete of direction of engineer in charge.   |  | Kg  |  |  |
| 26 | Cutting & Filling of grooves at desired depth 24mm & width In Tremix Concrete to be cut neatly & filling the joints with polysulphide sealant Fair seal P or equivalent, a pourable 2 part confirming to BS 4254: 1967 etc all complete of direction of engineer in charge.   |  | Rm  |  |  |
| 27 | Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement ,mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Granite of any colour and shade Area of slab over 0.50 sqm          |  | Sqm |  |  |
| 28 | Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineering- Charge : Flamed finish granite stone slab Jet Black |  | Sqm |  |  |
| 29 | Providing and laying Exterior grade vitrified floor tiles (Make Johnson/ Nitco/Oasis or equivalent) in (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 4457:2007, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc.,  |  | Sqm |  |  |
| 30 | Providing & fixing Chunar Cobble Stone Flooring (150X150X150)mm Stone Laid on 100 mm thick P.C.C. 1:4:8 with filling of joints in 1:3 Cement mortar with matching colour pigments all complete specification & direction of Engineer in charge.   |  | Sqm |  |  |
| 31 | Providing & fixing Basalt Cobble Stone (Jhanshi / Quartz) Flooring (150X150X100)mm Stone Laid on 100 mm thick P.C.C. 1:4:8 with filling of joints in 1:3 Cement mortar with matching colour pigments all complete specification & direction of Engineer in  |  | Sqm |  |  |

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|    |   |  |     |  |  |
|----|---|--|-----|--|--|
| 32 | 50 mm thick Local / Chunar sand stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar. Red Chunar sand stone  |  | Sqm |  |  |
| 33 | Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : 25mm   |  | Sqm |  |  |
| 34 | Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing   |  | Sqm |  |  |
| 35 | Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge. Area less than  |  | Sqm |  |  |
| 36 | Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer in  |  | Sqm |  |  |
| 37 | Providing and laying at or near ground level factory made kerb stone of M- 25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge) |  | Cum |  |  |
| 38 | Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-  |  | Sqm |  |  |
| 39 | Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved  |  | Sqm |  |  |

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|    |  |  |      |  |  |
|----|--|--|------|--|--|
| 40 | Finishing walls with textured exterior paint @ 3.28 ltr per 10 Sqm of approved brand and manufacturer and of required shade and undecorated wall surface to give even shade over including curing and cost of all material, labour T&P etc. required for proper completion of work for two coat over one coat primer   |  | SQM  |  |  |
| 41 | Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work  |  | SQM  |  |  |
| 42 | Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :New work (two or more coats) over and including water thinnable priming coat with cement primer  |  | SQM  |  |  |
| 43 | Providing & fixing Sand Stone single piece slab ornamental benches of approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by engineer - in -charge.  |  | Nos. |  |  |
| 44 | Providing and fixing sand stone Dustbins in 75 mm thick red sandstone with jali and carving properly shaped as per design of approved size, quality and standard specifications with removable metal bin inside properly fixed to stone body approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by engineer - in -                                    |  | Nos. |  |  |
| 45 | Providing& fixing of Stainless Steel Pole Mounted Single Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZ-UF-DB-22-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of engineer in charge  |  | Nos. |  |  |
| 46 | Providing & fixing of Stainless Steel Pole Mounted Double Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZ-UF-DB-33-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of engineer in charge |  | Nos. |  |  |
| 47 | Providing & fixing of MS powder coated "U Shape " Dual unit dustbin internal size 325mmx250mmx500mm(H) made of 25x50 box tube as an vertical support & 1.5mm thick MS sheet with laser cut perforation on vertical & bottom baseplate, the whole shall be minimum 60micron powder coated. including grout in cement concrete block etc all   |  | Nos. |  |  |

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|    |  |  |      |  |  |
|----|--|--|------|--|--|
| 48 | Providing& fixing of Stainless Steel Bench (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZ-UF-BN-11) Size L=1800mm, W=676mm, H=866mm with made by 304 grade stainless steel 28 tubes= 16mmOD and 50mm OD support size including 3mm thick 3 profiled flats with 2 legs made of 1.6mm sheet fixed with the help of grade push fit component with hairline finish including grout in cement concrete block etc all complete in direction of engineer in charge. |  | Nos. |  |  |
| 49 | Providing & fixing of Stainless steel 304 grade 4 seater bench (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZ-UF-BN-33) with hair line finish, of length 1800 mm and width 560 mm with tubular seats supported on 5 mm thick laser cut profiled fins and bench legs made of box section of 2mm thick ss 304 grade sheets including grout in cement concrete block etc all complete in direction of engineer in charge.                                       |  | Nos. |  |  |
| 50 | Providing & fixing of Aluminum signage (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZUF-SGN-SSAL-UNCM) Post type- S.S 304 grade pole and bracket Central mounted, Double sided display, Back light including grout in cement concrete block etc all complete in direction of engineer in   |  | Nos. |  |  |
| 51 | Providing & fixing of Aluminum signage (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZ-SGN-SSAL-UNSM) Post type- S.S 304 grade pole and bracket, One side mounted, Double sided back lit display. Back. including grout in cement concrete block etc all complete in direction of engineer in charge.   |  | Nos. |  |  |
| 52 | Providing & fixing of Backlit signage (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZUF-SGN-SSAL-UN2S) of two number of Double sided, back lit aluminium signage of size 1.8 mtr x 1.3 mtr fixed on either with ss 304 grade post . including grout in cement concrete  |  | Nos. |  |  |
| 53 | Providing & fixing of Pedestrian Light height- 3000mm light pole and brackets mounted on a chunar stone pedestal with patti pattern (ref-INTACH, Design tool-kit for urban Infrastructure )  |  | Nos. |  |  |
| 54 | Providing & fixing of traffic light Height- 6000 mm Pole - made of G.I Pipe with Top Dia 75mm, bottom dia 140mm Street light fixture: made of Aluminium sheet housing fitted with polycarbonate cover fitted with reflector. Material - G.I post with chunar stone pedestal (Wi-Fi enabled smart pole with astronomical  |  | Nos. |  |  |
| 55 | Providing & fixing of Metal Tree-root guard for existing trees 1/2" thick 1200mm x 1200mm in size including grouting & Painting polishing etc all complete in direction of engineer in charge.(Make Ozone/ Jindal/ Aco or Equivalent model no. OZ-UF-  |  | Nos. |  |  |
| 56 | Providing of Movable barricades Plastic barrier 2000mmx600mmx1200mm all complete as per drawing & design as per direction of engineer in charge.   |  | Rm   |  |  |
| 57 | Providing & Fixing of MS posts of 50mmx50mm, 900mm height @ every 1200mm c/c, fixed in RCC base of 100mmx300mm height , Hand rails- 75mm dia MS pipe welded to MS post; MS balusters as per design etc all complete in direction of engineer in  |  | Rm   |  |  |

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|      |  |   |  |      |  |  |
|------|--|---|--|------|--|--|
| 58   |  | Providing & fixing of Stainless Steel floor mounted Bollards (Make Ozone/ Jindal/ J.C.Decaux or equivalent ) grade 304, bollards dia 150mm, Base plate Dia 210mm, sheet thickness of 6mm and height 900mm including grout in cement concrete block etc all  |  | Nos. |  |  |
| 59   |  | Providing & fixing of Backlit Bollards including Fabrication and supply of Stainless Steel 304 grade, Size: Dia=150, Height= 1 Mt., Made in SS-304 or SS-316 grade, Finished in Satin or BA, Inner Material : Milky Polypropylene Sheet, Light: CFL/LED including grout in cement concrete block etc all complete in  |  | Nos. |  |  |
| 60   |  | Providing & fixing of Information kiosk combined with bio- toilets, Water atms Space, public address system, help desk as per drawing & specification all complete in direction of engineer in charge.  |  | Nos. |  |  |
| 61   |  | Providing & fixing of Informative Signboards as per drawing & Design including All necessary T&P etc all complete in direction of engineer in charge.   |  | Nos. |  |  |
| 62   |  | Landscape & horticulture  |  | Sqm  |  |  |
| 63   |  | Supplying & Laying of Coloured Bitumen including All necessary T&P etc all complete in direction of engineer in charge.   |  | Cum  |  |  |
| 64   |  | Plantation of trees (1500mm height) including excavating pit & cow dung, manure sludge with proper watering including One year maintenance with all necessary T&P etc all complete in direction of  |  | Nos. |  |  |
| 65   |  | <b>Drain</b>  |  |      |  |  |
| 65.1 |  | Excavation in foundation in ordinary soil (soil mixed morum shingle kankar/Loam, Clay or sand requiring the use of special tools and plants such a pick axes subbals etc.), including lift upto 1.50 mtr and lead upto 30mtr and including filling watering and ramming of excavated earth into the trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer in charge. upto a distance of 30mtr. from the foundation trenches |  | Cum  |  |  |
| 65.2 |  | Providing and laying in Cement concrete 1:4:8 (1Cement :4 approved Coarse sand : 8 Coarse Aggregate ) Size of aggregate shall be 4 cm gauge or as approved including supply of all material labour , T&P etc required for proper completion for the work .  |  | Cum  |  |  |
| 65.3 |  | R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved stone ballast in the proportion 1:1.5:3 (1Cement: 6 aggregate) in Wall excluding supply of reinforcement and its bending but including its fixing and binding the same necessary with 24BWG binding wire and including necessary centering and shuttering etc. and also including supply of materials labour and tools and plants etc. required for proper completion of the work, strength of the concrete shall not be less than<br>M-150                              |  | Cum  |  |  |
| 65.4 |  | As in item 65.3 above but 1:1.5:3 for Slab  |  | Cum  |  |  |

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|      |   |  |      |  |  |
|------|---|--|------|--|--|
| 65.5 | Mild steel or iron in plain work such as reinforced concrete or reinforced brick work(when not included in overall rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorized overlapping shall be measured.   |  | Qtl. |  |  |
| 65.6 | Brick work with class 150 bricks in foundation & plinth in cement mortar 1: 4 (1 cement : 4 coarse sand) including all materials, labour, proper curing and T & P etc. required for proper completion of work as directed by Engineer - in -charge.   |  | Cum  |  |  |
| 65.7 | 12 mm thick cement plaster in single coat of fair side of single or half brick wall for interior plastering up to floor two level including internal rounded angles chamfers, and or rounded angles not exceeding 80 mm, in girth and finished even and smooth. : 1:3 (1 cement:  |  | Sqm  |  |  |
| 66   | <b>Bitumen Road</b>   |  |      |  |  |
| 66.1 | The surface shall be cleaned of all loos extraneous matter by means of mechanical broom, high-ressure air jet received from a compressor or any other approved equipment / method. & Filling up of potholes and sealing of cracks: Any potholes and /or cracks shall be   |  | Sqm  |  |  |
| 66.2 | Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne  |  | Sqm  |  |  |
| 66.3 | Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer in Charge   |  | Cum  |  |  |
| 66.4 | Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifications and directions of Engineer-in-Charge.<br>50 to 100 mm average compacted thickness with bitumen of grade VG-30 @5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared |  | Cum  |  |  |
| 66.5 | Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :<br>On  |  | sqm  |  |  |



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|      |   |  |      |     |  |
|------|---|--|------|-----|--|
| 66.6 | Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge. 40/50 mm compacted thickness with bitumen of grade VG-30 @5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in |  | Cum  |     |  |
| 66.7 | Providing and applying 2.5 mm thick road marking strips (retroreflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications   |  | Sqm  |     |  |
| 66.8 | Supplying & fixing of Pavement Marker (Cat's eye) Type X- ASTM- 4956&04 Avery Dimension/3 - m (USA make ) Adherent plotting compound, housing shall contain prismatic two glass covered prismatic reflective face to reflect incident light all taxes   |  | Nos. |     |  |
| 67   | Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete  |  | Nos. |     |  |
| 68   | Supplying & Laying of Black/ Yellow Paint (Make - Berger/ Asian paints / Dulux) on Jersey Barrier proper smooth surface two or more coat etc all complete in direction of engineer in charge.   |  | Sqm  |     |  |
| 69   | Providing & fixing of Stainless Steel Retractable Bollards (Make Ozone/ Jindal/ J.C.Decaux or equivalent ) grade 304, bollards dia 150mm, Base plate Dia 210mm, sheet thickness of 6mm and height 900mm including grout in cement concrete block etc all  |  | Nos. |     |  |
| 70   | Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.   |  | Sqm  |     |  |
|      |   |  |      |     |  |
|      | <b>TOTAL COST</b>   |  |      |     |  |
|      |   |  |      |     |  |
|      |   |  | Say  | Rs. |  |

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[Insert SOR based on [Insert name of smart city] Circle Rates and Current Market Rates]

| BILL OF QUANTITY FOR PROPOSED DEVELOPMENT OF STREETS   |         |  |          |       |       |        |
|--|---------|--|----------|-------|-------|--------|
| AT [Insert name of smart city]   |         |  |          |       |       |        |
| S.N.   | DSR NO. | DESCRIPTION OF ITEM  | QUANTITY | UNIT  | RATES | AMOUNT |
| BASED ON PWD S.O.R. [Insert name of smart city] CIRCLE [Insert Date] / DSR [Insert Year] & CURRENT |         |  |          |       |       |        |
| 1  |         | Dismantling brick work or stone work in lime or cement mortar and including stacking of materials as directed by Engineer-in-charge within a distance of 60 meters   |          | Cum   |       |        |
| 2  |         | Dismantling reinforced cement concrete or reinforced brick work including stacking of dismantled materials as decided by Engineer-in-charge within a distance of   |          | Cum   |       |        |
| 3  |         | Dismantling cement concrete or brick or grantholithic floors including stacking of dismantled materials as directed by engineer-in-charge within a distance of 60  |          | Sqm   |       |        |
| 4  |         | Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.   |          | Sqm   |       |        |
| 5  |         | Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.  |          |       |       |        |
|  |         | Nominal concrete 1:3:6 or richer mix (i/c equivalent   |          | Cum   |       |        |
| 6  |         | Dismantling tile work in floors and roogs laid in cement mortar including stacking material within 50 meters lead For thickness of tiles above 25 mm and up to 40  |          | Sqm   |       |        |
| 7  |         | Dismantling of girders, trusses and other steel work including stacking of dismantled materials as directed by Engineer-in-charge within a distance of 60 meters   |          | Qtl.  |       |        |
| 8  |         | Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc. Disposal of unservicable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-charge.  |          | Metre |       |        |
| 9  |         | Excavation in foundation in ordinary soil (soil mixed morum shingle kankar/Loam, Clay or sand requiring the use of special tools and plants such a pick axes subbals etc.), including lift upto 1.50 mtr and lead upto 30mtr and including filling watering and ramming of excavated earth into the trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer in charge. upto a distance of 30mtr from the foundation trenches |          | Cum   |       |        |
| 10   |         | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift  |          | Cum   |       |        |
| 11   |         | Earth work cartage for disposal of surplus earth beyond 20 kms or more including loading, un-loading and cartage etc. all complete in direction of engineer in charge, as per site requirement.  |          | Cum   |       |        |
| 12   |         | Extra for Leveling & Neatly dressed of disposed soil completely as directed by engineer in charge.   |          | Cum   |       |        |
| 13   |         | Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density   |          | Cum   |       |        |
| 14   |         | Sand filling in plinth including supply of necessary quantity of sand from a distance not exceeding 8 Kms from the side of work and including watering dressing etc. rate to include cost of all material \s, labour and T&P etc. required for proper completion of work.  |          | Cum   |       |        |

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|----|--|--|------|--|--|
| 15 | Providing and laying in Cement concrete 1:4:8 (1Cement :4 approved Coarse sand : 8 Coarse Aggregate ) Size of aggregate shall be 4 cm gauge or as approved including supply of all material labour , T&P etc required for proper completion for the work .   |  | Cum  |  |  |
| 16 | R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved sone ballast in the proportion 1:1.5:3 (1Cement: 6 aggregate) in Jersey Barrier excluding supply of reinforcement and its bending but including its fixing and binding the same necessary with 24BWG binding wire and including necessary centering and shuttering etc. and also including supply of materials labour and tools and plants etc. required for proper completion of the work, strength of the concrete shall not be less than M 150.  |  | CUM  |  |  |
| 17 | As in item 16 above but 1:1.5:3 for Slab   |  | CUM  |  |  |
| 18 | Mild steel or iron in plain work shch as reinforced concrete or reinforced brick work(when not included in overall rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorized overlapping shall be measured.  |  | Qtl. |  |  |
| 19 | Brick work with class 150 bricks in foundation & plinth in cement mortar 1: 4 (1 cement : 4 coarse sand) including all materials, labour, proper curing and T & P etc. required for proper completion of work as directed by Engineer - in -charge.  |  | Cum  |  |  |
| 20 | Providing and fixing M.S. grills of required pattern in frames of drain grating etc. with M.S. flats, square or round bars etc. including priming coat with approved   |  | Kg   |  |  |
| 21 | 12 mm thick cement plaster in single coat of fair side of single or half brick wall for interior plastering up to floor two level including internal rounded angles chamfers, and or rounded angles not exceeding 80 mm, in girth and finished even and smooth. : 1:3 (1 cement:   |  | Sqm  |  |  |
| 22 | Providing & laying coloured and textured imprinted cast in place concrete flooring, applying finishing the top surface, in accordance with sprinkling of colour hardener at the rate of 2.7 kg./sq.mt. Floating the surface application of release agent, stamping the concrete with stamping tools, cleaning the surface with water jet (next day) and application of acrylic based sealer for finishing all complete as per directions of the Engineer-in-Charge. The work includes providing and Laying avg . 75 to 100 mm thick M30 grade BMC / RMC concrete using 420 kg of cement per cum. of concrete including well compaction, necessary finishing top surface, side supports, leveling, pumping, curing, |  | Sqm  |  |  |
| 23 | Laying Tremix concreting surface with broom finish as per specified pattern design including mixing of concrete hardener @ 5 liters./ sqm in concrete including vacuum dewatering from concrete mix by vacuum dewatering Pump excluding cost of BMC / RMC concrete required for proper completion of work as   |  | Sqm  |  |  |
| 24 | Supply of floor hardener non-metallic hard wearing, abrasion Resistant fair top std or Equivalent @ 5 kg. per sqm Confirming to BS 812 : part 3, 1915 & SS 26 : 1970 etc all complete of direction of engineer in charge.  |  | Kg   |  |  |
| 25 | Cutting & Filling of grooves at desired depth 24mm & width In Tremix Concrete to be cut neatly & filling the joints with polysulphide sealant Fair seal P or equivalent, a pourable 2 part confirming to BS 4254: 1967 etc all complete of direction of engineer in charge.  |  | Rm   |  |  |

|    |  |  |     |  |  |
|----|--|--|-----|--|--|
| 26 | Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Granite of any colour and shade. Area of slab over 0.50 sqm          |  | Sqm |  |  |
| 27 | Providing and laying flamed finish Granite stone flooring in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing, curing and polishing etc. all complete as specified and as directed by the Engineering- Charge : Flamed finish granite stone slab Jet Black. |  | Sqm |  |  |
| 28 | Providing and laying Exterior grade vitrified floor tiles (Make Johnson/ Nitco/Oasis or equivalent) in (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 4457:2007, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc.,   |  | Sqm |  |  |
| 29 | Providing & fixing Chunar Cobble Stone Flooring (150X150X150)mm Stone Laid on 100 mm thick P.C.C. 1:4:8 with filling of joints in 1:3 Cement mortar with matching colour pigments all complete specification & direction of Engineer in charge.  |  | Sqm |  |  |
| 30 | Providing & fixing Basalt Cobble Stone (Jhanshi / Quartz) Flooring (150X150X100)mm Stone Laid on 100 mm thick P.C.C. 1:4:8 with filling of joints in 1:3 Cement mortar with matching colour pigments all complete specification & direction of Engineer in   |  | Sqm |  |  |
| 31 | 50 mm thick Chunar sand stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar. Red Chunar sand stone & White   |  | Sqm |  |  |
| 32 | 50 mm thick Local sand stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar. Red Chunar sand stone & White  |  | Sqm |  |  |
| 33 | Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) : 25mm  |  | Sqm |  |  |
| 34 | Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing  |  | Sqm |  |  |

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|    |   |  |      |  |  |
|----|---|--|------|--|--|
| 35 | Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge. Area less than 0.50 sqm   |  | Sqm  |  |  |
| 36 | Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer in  |  | Sqm  |  |  |
| 37 | Providing and laying at or near ground level factory made kerb stone of M- 25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge) |  | Cum  |  |  |
| 38 | Providing, laying and making kerb channel 30 cm wide and 50 mm thick with cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-  |  | Sqm  |  |  |
| 39 | Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/ 10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved  |  | Sqm  |  |  |
| 40 | Finishing walls with textured exterior paint @ 3.28 ltr per 10 Sqm of approved brand and manufacturer and of required shade and undecorated wall surface to give even shade over including curing and cost of all material, labour T&P etc. required for proper completion of work for two coat over one coat primer  |  | SQM  |  |  |
| 41 | Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work   |  | SQM  |  |  |
| 42 | Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade :New work (two or more coats) over and including water thinnable priming coat with cement primer   |  | SQM  |  |  |
| 43 | Providing & fixing Sand Stone single piece slab ornamental benches of approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by engineer - in -charge.   |  | Nos. |  |  |

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|----|--|--|--|--|------|
| 44 | Providing and fixing sand stone Dustbins in 75 mm thick red sandstone with jali and carving properly shaped as per design of approved size, quality and standard specifications with removable metal bin inside properly fixed to stone body approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by engineer - in -                                    |  |  |  | Nos. |
| 45 | Providing& fixing of Stainless Steel Pole Mounted Single Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-UF-DB-22-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of engineer in charge  |  |  |  | Nos. |
| 46 | Providing & fixing of Stainless Steel Pole Mounted Double Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-UF-DB-33-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of engineer in charge |  |  |  | Nos. |
| 47 | Providing & fixing of MS powder coated "U Shape " Dual unit dustbin internal size 325mmx250mmx500mm(H) made of 25x50 box tube as an vertical support & 1.5mm thick MS sheet with laser cut perforation on vertical & bottom baseplate, the whole shall be minimum 60micron powder coated. including grout in cement concrete block etc all   |  |  |  | Nos. |
| 48 | Providing& fixing of Stainless Steel Bench (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-UF-BN-11) Size L=1800mm, W=676mm, H=866mm with made by 304 grade stainless steel 28 tubes= 16mmOD and 50mm OD support size including 3mm thick 3 profiled flats with 2 legs made of 1.6mm sheet fixed with the help of grade push fit component with hairline finish including grout in cement concrete block etc all complete in direction of engineer in charge.     |  |  |  | Nos. |
| 49 | Providing & fixing of Stainless steel 304 grade 4 seater bench (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-UF-BN-33) with hair line finish, of length 1800 mm and width 560 mm with tubular seats supported on 5 mm thick laser cut profiled fins and bench legs made of box section of 2mm thk ss 304 grade sheets including grout in cement concrete block etc all complete in direction of engineer in charge.   |  |  |  | Nos. |
| 50 | Providing & fixing of Aluminum signage (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZUF-SGN-SSAL-UNCM) Post type- S.S 304 grade pole and bracket Central mounted, Double sided display, Back light including grout in cement concrete block etc all complete in direction of engineer in charge.   |  |  |  | Nos. |
| 51 | Providing & fixing of Aluminum signage (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-SGN-SSAL-UNSM) Post type- S.S 304 grade pole and bracket, One side mounted, Double sided back lit displayBack. including grout in cement concrete block etc all complete in direction of engineer in charge.   |  |  |  | Nos. |

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|    |   |  |      |  |  |
|----|---|--|------|--|--|
| 52 | Providing & fixing of Backlit signage (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZUF-SGN-SSAL-UN2S) of two number of Double sided, back lit aluminium signage of size 1.8 mtr x 1.3 mtr fixed on either with ss 304 grade post . including grout in cement concrete   |  | Nos. |  |  |
| 53 | Providing & fixing of light pole Height- 6000 mm Pole made of G.I Pipe with Top Dia 75mm, bottom dia 140mm Street light fixture: made of Aluminium sheet housing fitted with polycarbonate cover fitted with reflector. Material - G.I post with chunar stone pedestal (Wi-Fi enabled smart pole with astronomical switch)  |  | Nos. |  |  |
| 54 | Providing & fixing of Smart pole with Head 360 Light – 40W LED and WLAN SH3LW-00-NW003A1-5103AS-PC16-V02D00S0-C000-C000-F0-CSCZ-01, with 180 Shuffle CCTV Camera SH18C-00-V02D00S0-C00-CQ-01, with 180 Shuffle Loudspeaker SH18S-00-V02S0-CPD6-01, Shuffle Mains & Beyond Lighting SHBO1-00-V02SE-CJ5A+4B+CS+CQ+CP-0-N0-01, Shuffle Pole - with EV Charger (5130 mm) (Make: |  | Nos. |  |  |
| 55 | Providing & fixing of Smart pole with Head 360 Light – 40W LED without WLAN with 180 Shuffle CCTV Camera SH18C-00-V02D00S0-C00-CQ-01, with 180 Shuffle Loudspeaker SH18S-00-V02S0-CPD6-01, Shuffle Mains & Beyond Lighting SHBO1-00-V02SE-CJ5A+4B+CS+CQ+CP-0-N0-01, Shuffle Pole - no EV Charger (5130 mm) SHPOLE-00-L23-0-W2D0-  |  | Nos. |  |  |
| 56 | Providing & fixing of Metal Tree-root gaurd for existing trees 1/2" thick 1200mm x 1200mm in size including grouting & Painting polishing etc all complete in direction of engineer in charge.(Make Ozone/ Jindal/ Aco or Equvellent model no. OZ-UF-BN-22 )  |  | Nos. |  |  |
| 57 | Providing & Fixing of MS posts of 50mmx50mm, 900mm height @ every 1200mm c/c, fixed in RCC base of 100mmx300mm height , Hand rails- 75mm dia MS pipe welded to MS post; MS balusters as per design etc all complte in direction of engineer in charge.  |  | Rm   |  |  |
| 58 | Providing & fixing of Stainless Steel floor mounted Bollards (Make Ozone/ Jindal/ J.C.Decaux or equivalent ) grade 304, bollards dia 150mm, Base plate Dia 210mm, sheet thickness of 6mm and height 900mm including grout in cement concrete block etc all  |  | Nos. |  |  |
| 59 | Providing & fixing of Backlit Bollards including Fabrication and supply of Stainless Steel 304 grade, Size: Dia=150, Height= 1 Mt., Made in SS-304 or SS-316 grade, Finished in Satin or BA, Inner Material : Milky Polypropylene Sheet, Light: CFL/LED including grout in cement concrete block etc all complete in  |  | Nos. |  |  |
| 60 | Providing & fixing of Water Atm complete as per Specification including all necessary T& P etc required for proper completion of the Work as per direction of   |  | Nos. |  |  |
| 61 | Providing & fixing of Informative Signboards as per drawing & Design including All necessary T&P etc all complete in direction of engineer in charge.   |  | Nos. |  |  |
| 62 | Plantation of trees (1500mm height) including excavating pit & cowdung, manure sludge with proper watering including One year maintainance with all necessary T&P etc all complete in direction of  |  | Nos. |  |  |
| 63 | Supplying & Laying of Coloured Bitumen including All necessary T&P etc all complete in direction of engineer in charge.   |  | Cum  |  |  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

|      |  |   |      |  |  |
|------|--|---|------|--|--|
| 64   |  | Supply & Fixing of 160mm dia HDPE Pipe conforming to IS 4984-(PN 10) including All necessary T&P etc all complete in direction of engineer in charge.   | Rm   |  |  |
| 65   |  | Supply & Fixing of 160mm dia HDPE Collar PN-10 including All necessary T&P etc all complete in direction of engineer in charge.   | Nos. |  |  |
| 66   |  | Supply & Fixing of 160mm HDPE Tee PN-10 including All necessary T&P etc all complete in direction of engineer in charge.  | Nos. |  |  |
| 67   |  | <b>Drain</b>  |      |  |  |
| 67.1 |  | Excavation in foundation in ordinary soil (soil mixed morum shingle kankar/Loam, Clay or sand requiring the use of special tools and plants such a pick axes subbals etc.), including lift upto 1.50 mtr and lead upto 30mtr and including filling watering and ramming of excavated earth into the trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer in charge. upto a distance of 30mtr from the foundation trenches. | Cum  |  |  |
| 67.2 |  | Providing and laying in Cement concrete 1:4:8 (1Cement :4 approved Coarse sand : 8 Coarse Aggregate ) Size of aggregate shall be 4 cm gauge or as approved including supply of all material labour , T&P etc required for proper completion for the work .  | Cum  |  |  |
| 67.3 |  | R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved srone ballast in the proportion 1:1.5:3 (1Cement: 6 aggregate) in Wall excluding supply of reinforcement and its bending but including its fixing and binding the same necessary with 24BWG binding wire and including necessary centering and shuttering etc. and also including supply of materials labour and tools and plants etc. required for proper completion of the work, strength of the concrete shall not be less than M 150.                                | Cum  |  |  |
| 67.4 |  | As in item 67.3 above but 1:1.5:3 for Slab  | Cum  |  |  |
| 67.5 |  | Mild steel or iron in plain work shch as reinforced concrete or reinforced brick work(when not included in overall rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorized overlapping shall be measured.   | Qtl. |  |  |
| 67.6 |  | Brick work with class 150 bricks in foundation & plinth in cement mortar 1: 4 (1 cement : 4 coarse sand) including all materials, labour, proper curing and T & P etc. required for proper completion of work as directed by Engineer - in -charge.   | Cum  |  |  |
| 67.7 |  | 12 mm thick cement plaster in single coat of fair side of single or half brick wall for interior plastering up to floor two level including internal rounded angles chamfers, and or rounded angles not exceeding 80 mm, in girth and finished even and smooth. : 1:3 (1 cement:  | Sqm  |  |  |
| 68   |  | <b>Bitumen Road</b>   |      |  |  |
| 68.1 |  | The surface shall be cleaned of all loos extraneous matter by means of mechanical broom, high-ressure air jet received from a compressor or any other approved equipment / method. & Filling up of potholes and sealing of cracks: Any potholes and /or cracks shall be   | Sqm  |  |  |



FIRST DRAFT DOCUMENT FOR SMART ROADS

|      |   |  |      |  |  |
|------|---|--|------|--|--|
| 68.2 | Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne  |  | Sqm  |  |  |
| 68.3 | Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge  |  | Cum  |  |  |
| 68.4 | Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifications and directions of Engineer-in-Charge.<br>50 to 100 mm average compacted thickness with bitumen of grade VG-30 @5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared |  | Cum  |  |  |
| 68.5 | Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :<br>On  |  | sqm  |  |  |
| 68.6 | Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.<br>40/50 mm compacted thickness with bitumen of grade VG-30 @5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch                              |  | Cum  |  |  |
| 68.7 | Providing and applying 2.5 mm thick road marking strips (retro reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications  |  | Sqm  |  |  |
| 68.8 | Supplying & fixing of Pavement Marker (Cat's eye) Type X- ASTM-D- 4956&04 Avery Dimension/3 - m (USA make ) Adherent plotting compound, housing shall contain prismatic two glass covered prismatic reflective face to reflect incident light all taxes   |  | Nos. |  |  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

|    |   |  |            |  |  |
|----|---|--|------------|--|--|
| 69 | Fabrication, supply and installation of SS 304 grade bus shelter with tubular structures and trussed roof. 10 mm thick multi wall polycarbonate sheet with 35% light transmission of make ,G.E plastics with 5 year warranty, will be fixed on the top of roof, Tubular bench made of SS grade pipe with Seating capacity 8 persons Name plate with necessary info format on pasted vinyl of L.G make. Back lit Stainless Steel signage with inbuilt STRONG clipping & frame arrangement for holding the flex or digital media along with all necessary cleats and corner etc. (Cost of Civil |  | Nos.       |  |  |
| 70 | Fabrication , supply and installation of 4 seater bench in SS-304 grade , with canopy of size 2 mtr x 1.5 metre.along with an aluminium single sided advertisement panel of size 1.6 mtr x .75 mtr. Etc all   |  | Nos.       |  |  |
| 71 | Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete  |  | Nos.       |  |  |
| 72 | Trial run cost including advertisement as per <b>Section - 5 of RFP</b> all complete in direction of Urban Designer / Transport Planner in charge.  |  | Job        |  |  |
| 73 | Providing & fixing of Touch Screen Kiosk including data, software and power backup, Kiosk Covered by Stainless steel 304 grade frame etc all complete in direction of engineer in charge.   |  | Nos.       |  |  |
| 74 | Providing Weep holes (for Bamboo) internal Dimension (D-300xW-150xL-150) mm lined with non collapsible edge / openable hinged top cover to be made out of stainless steel 304 grade tray finished with 40 mm thick chunar sand stone etc all complete in direction of   |  | Nos.       |  |  |
| 76 | Supplying & Laying of Black/ Yellow Paint (Make - Berger/ Asian paints / Dulex) on Jersey Barrier proper smooth surface two or more coat etc all complete in direction of engineer in charge.   |  | Sqm        |  |  |
| 77 | Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1 cement : 4 coarse sand) with joints 10mm wide filled with same mortar including ruled pointing etc. complete as per direction of engineer-in-charge.   |  | Sqm        |  |  |
|    |   |  |            |  |  |
|    | <b>TOTAL COST</b>   |  | <b>Rs.</b> |  |  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

[Insert PWD SOR [Insert name of smart city] Circle]

| BILL OF QUANTITY FOR PROPOSED DEVELOPMENT OF INTERNAL ROADS  |         |   |          |       |       |        |
|--|---------|---|----------|-------|-------|--------|
| AT.- [Insert name of smart city]   |         |   |          |       |       |        |
| S.N.   | DSR NO. | DESCRIPTION OF ITEM   | QUANTITY | UNIT  | RATES | AMOUNT |
| BASED ON PWD S.O.R. [Insert name of smart city] CIRCLE [Insert Date] / DSR [Insert Year] & CURRENT |         |   |          |       |       |        |
| 1  |         | Dismantling brick work or stone work in lime or cement mortar and including stacking of materials as directed by Engineer-in-charge within a distance of 60 meters (200 feet).  |          | Cum   |       |        |
| 2  |         | Dismantling reinforced cement concrete or reinforced brick work including stacking of dismantled materials as decided by Engineer-in-charge within a distance of 60 meters (200 feet)   |          | Cum   |       |        |
| 3  |         | Dismantling cement concrete or brick or grantholithic floors including stacking of dismantled materials as directed by engineer-in-charge within a distance of 60 meters (200 feet)   |          | Sqm   |       |        |
| 4  |         | Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.  |          | Sqm   |       |        |
| 5  |         | Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.   |          |       |       |        |
|  |         | Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)  |          | Cum   |       |        |
| 6  |         | Dismantling tile work in floors and roogs laid in cement mortar including stacking material within 50 meters lead For thickness of tiles above 25 mm and up to 40 mm  |          | Sqm   |       |        |
| 7  |         | Dismantling of girders, trusses and other steel work including stacking of dismantled materials as directed by Engineer-in-charge within a distance of 60 meters (200 feet)   |          | Qtl.  |       |        |
| 8  |         | Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc. Disposal of unservicable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-charge.   |          | Metre |       |        |
| 9  |         | Excavation in foundation in ordinary soil (soil mixed morum shingle kankar/Loam, Clay or sand requiring the use of special tools and plants such a pick axes subbals etc.), including lift upto 1.50 mtr and lead upto 30mtr and including filling watering and ramming of excavated earth into the trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer in charge. upto a distance of 30mtr from the foundation trenches. |          | Cum   |       |        |
| 10   |         | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.   |          | Cum   |       |        |
| 11   |         | Earth work cartage for disposal of surplus earth beyond 20 kms or more including loading, un-loading and cartage etc. all complete in direction of engineer in charge, as per site requirement.   |          | Cum   |       |        |
| 12   |         | Extra for Leveling & Neatly dressed of disposed soil completely as directed by engineer in charge.  |          | Cum   |       |        |

FIRST DRAFT DOCUMENT FOR SMART ROADS

|    |  |   |  |      |  |  |
|----|--|---|--|------|--|--|
| 13 |  | Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density  |  | Cum  |  |  |
| 14 |  | Sand filling in plinth including supply of necessary quantity of sand from a distance not exceeding 8 Kms from the side of work and including watering dressing etc. rate to include cost of all material \s, labour and T&P etc. required for proper completion of work.   |  | Cum  |  |  |
| 15 |  | Providing and laying in Cement concrete 1:4:8 (1Cement :4 approved Coarse sand : 8 Coarse Aggregate ) Size of aggregate shall be 4 cm gauge or as approved including supply of all material labour , T&P etc required for proper completion for the work .  |  | Cum  |  |  |
| 16 |  | R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved stone ballast in the proportion 1:1.5:3 (1Cement: 6 aggregate) in Lighter excluding beam supply of reinforcement and its bending but including its fixing and binding the same necessary with 24BWG binding wire and including necessary centering and shuttering etc. and also including supply of materials labour and tools and plants etc. required for proper completion of the work, strength of the concrete shall not be less than M 150           |  | CUM  |  |  |
| 17 |  | Mild steel or iron in plain work shch as reinforced concrete or reinforced brick work(when not included in overall rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorized overlapping shall be measured.   |  | Qtl. |  |  |
| 18 |  | Brick work with class 150 bricks in foundation & plinth in cement mortar 1: 4 (1 cement : 4 coarse sand) including all materials, labour, proper curing and T & P etc. required for proper completion of work as directed by Engineer - in -charge.   |  | Cum  |  |  |
| 19 |  | 50 mm thick Local/Chunar sand stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar. Red Chunar sand stone & White Chunar Sand Stone  |  | Sqm  |  |  |
| 20 |  | Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in- |  | Sqm  |  |  |
| 21 |  | Providing & fixing Sand Stone single piece slab ornamental benches of approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by Engineer - in - charge.  |  | Nos. |  |  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

|      |  |  |      |  |  |
|------|--|--|------|--|--|
| 22   | Providing and fixing sand stone Dustbins in 75 mm thick red sandstone with jali and carving properly shaped as per design of approved size, quality and standard specifications with removable metal bin inside properly fixed to stone body approved design pattern (shape) and specifications including c/c 1:2:4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by engineer - in - charge.                                      |  | Nos. |  |  |
| 23   | Providing & fixing of Stainless Steel Pole Mounted Single Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equivelent model no. OZ-UF-DB-22-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of                            |  | Nos. |  |  |
| 24   | Providing & fixing of Stainless Steel Pole Mounted Double Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equivalent model no. OZ-UF-DB-33-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of <u>Engineer in charge.</u> |  | Nos. |  |  |
| 25   | Providing & fixing of MS powder coated "U Shape " Duel unit dustbin internal size 325mmx250mmx500mm(H) made of 25x50 box tube as an vertical support & 1.5mm thick MS sheet with laser cut perforation on vertical & bottom baseplate, the whole shall be minimum 60micron powder coated. including grout in cement concrete block etc all complete in direction of engineer in charge.  |  | Nos. |  |  |
| 26   | Providing & fixing of Pedestrian Light height- 3000mm light pole and brackets mounted on a chunar stone pedestal with patti pattern (ref-INTACH, Design tool-kit for urban Infrastructure )  |  | Nos. |  |  |
| 27   | Wall mounted light at height- 3000mm at 10m c/c along the street   |  | Nos. |  |  |
| 28   | Providing & fixing of Informative Signboards as per drawing & Design including All necessary T&P etc all complete in direction of engineer in charge.  |  | Nos. |  |  |
| 29   | Plantation of trees (1500mm height) including excavating pit & cow dung, manure sludge with proper watering including One year maintenance with all necessary T&P etc all complete in direction of   |  | Nos. |  |  |
| 30   | <b>Bitumen Road</b>  |  |      |  |  |
| 30.1 | The surface shall be cleaned of all loose extraneous matter by means of mechanical broom, high-pressure air jet received from a compressor or any other approved equipment / method. & Filling up of potholes and sealing of cracks: Any potholes and /or cracks shall be  |  | Sqm  |  |  |
| 30.2 | Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8 tonne   |  | Sqm  |  |  |

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|      |  |   |  |      |  |  |
|------|--|---|--|------|--|--|
| 30.3 |  | Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paver finisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievable desired density, complete as per specifications and directions of Engineer-in-Charge  |  | Cum  |  |  |
| 30.4 |  | Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifications and directions of Engineer-in-Charge.<br>50 to 100 mm average compacted thickness with bitumen of grade VG-30 @5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared |  | Cum  |  |  |
| 30.5 |  | Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :<br>On  |  | sqm  |  |  |
| 30.6 |  | Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equipped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.<br>40/50 mm compacted thickness with bitumen of grade VG-30 @5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch                              |  | Cum  |  |  |
| 30.7 |  | Providing and applying 2.5 mm thick road marking strips (retroreflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications   |  | Sqm  |  |  |
| 30.8 |  | Supplying & fixing of Pavement Marker (Cat's eye) Type X- ASTM- 4956&04 Avery Dimension/3 - m (USA make ) Adherent plotting compound, housing shall contain prismatic two glass covered prismatic reflective face to reflect incident light all taxes   |  | Nos. |  |  |
| 31   |  | Supplying & Laying of Sand stone Kerb Channel Including PCC. and Mortar etc all complete in direction of engineer in charge   |  | Rm   |  |  |
| 32   |  | Relaying of Existing sand stone including cleaning & Mortar for filling of joints etc all complete in direction of engineer in Charge.  |  | Sqm  |  |  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

|    |  |  |            |            |  |  |
|----|--|--|------------|------------|--|--|
| 33 |  | Retro- reflectorised Traffic signs (Providing and fixing of retro- reflectorised cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete |            |            |  |  |
|    |  |  |            | Nos.       |  |  |
|    |  |  |            | <b>Rs.</b> |  |  |
|    |  |  |            |            |  |  |
|    |  | <b>TOTAL COST</b>  | <b>Say</b> | <b>Rs.</b> |  |  |

FIRST DRAFT DOCUMENT FOR SMART ROADS

[Insert PWD SOR [Insert name of smart city] Circle]

| BILL OF QUANTITY FOR PROPOSED DEVELOPMENT OF ROADS   |        |   |          |       |       |        |
|--|--------|---|----------|-------|-------|--------|
| AT.- [Insert name of smart city]   |        |   |          |       |       |        |
| S.N.   | DSR NO | DESCRIPTION OF ITEM   | QUANTITY | UNIT  | RATES | AMOUNT |
| BASED ON PWD S.O.R. [Insert name of smart city] CIRCLE [Insert Date] / DSR [Insert Year] & |        |   |          |       |       |        |
| 1  |        | Dismantling brick work or stone work in lime or cement mortar and including stacking of materials as directed by Engineer-in-charge within a distance of 60 meters (200 feet).  |          | Cum   |       |        |
| 2  |        | Dismantling reinforced cement concrete or reinforced brick work including stacking of dismantled materials as decided by Engineer-in-charge within a distance of 60 meters (200 feet)   |          | Cum   |       |        |
| 3  |        | Dismantling cement concrete or brick or grantholithic floors including stacking of dismantled materials as directed by engineer-in-charge within a distance of 60 meters (200 feet)   |          | Sqm   |       |        |
| 4  |        | Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50   |          | Sqm   |       |        |
| 5  |        | Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-   |          |       |       |        |
|  |        | Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)  |          | Cum   |       |        |
| 6  |        | Dismantling tile work in floors and roogs laid in cement mortar including stacking material within 50 meters lead For thickness of tiles above 25 mm  |          | Sqm   |       |        |
| 7  |        | Dismantling of girders, trusses and other steel work including stacking of dismantled materials as directed by Engineer-in-charge within a distance of 60 meters (200 feet)   |          | Qtl.  |       |        |
| 8  |        | Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc. Disposal of unservicable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-  |          | Metre |       |        |
| 9  |        | Excavation in foundation in ordinary soil (soil mixed morum shingle kankar/Loam, Clay or sand requiring the use of special tools and plants such a pick axes subbals etc.), including lift upto 1.50 mtr and lead upto 30mtr and including filling watering and ramming of excavated earth into the trenches or into the space between the building and the sides of foundation trenches or into the plinth and removal and disposal of surplus earth as directed by the engineer in charge. upto a distance of 30mtr from the foundation trenches. |          | Cum   |       |        |
| 10   |        | Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.   |          | Cum   |       |        |



|    |  |   |  |      |  |  |
|----|--|---|--|------|--|--|
| 11 |  | Earth work cartage for disposal of surplus earth beyond 20 kms or more including loading, unloading and cartage etc. all complete in direction of engineer in charge, as per site requirement.  |  | Cum  |  |  |
| 12 |  | Extra for Leveling & Neatly dressed of disposed soil completely as directed by engineer in charge.  |  | Cum  |  |  |
| 13 |  | Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density  |  | Cum  |  |  |
| 14 |  | Sand filling in plinth including supply of necessary quantity of sand from a distance not exceeding 8 Kms from the side of work and including watering dressing etc. rate to include cost of all material \s, labour and T&P etc. required for proper completion  |  | Cum  |  |  |
| 15 |  | Providing and laying in Cement concrete 1:4:8 (1Cement :4 approved Coarse sand : 8 Coarse Aggregate ) Size of aggregate shall be 4 cm gauge or as approved including supply of all material labour , T&P etc required for proper completion for   |  | Cum  |  |  |
| 16 |  | R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved srone ballast in the proportion 1:1.5:3 (1Cement: 6 aggregate) in Lighter excluding supply of reinforcement and its bending but including its fixing and binding the same necessary with 24BWG binding wire and including necessary centering and shuttering etc. and also including supply of materials labour and tools and plants etc. required for proper completion<br><del>of the work strength of the concrete shall not be</del>                         |  | CUM  |  |  |
| 17 |  | Mild steel or iron in plain work shch as reinforced concrete or reinforced brick work(when not included in overall rates) wrought to required shape as necessary including bending for proper completion of the work and including supply of steel its wastage bend hooks and authorized  |  | Qtl. |  |  |
| 18 |  | Brick work with class 150 bricks in foundation & plinth in cement mortar 1: 4 (1 cement : 4 coarse sand) including all materials, labour, proper curing and T & P etc. required for proper completion of work as directed by Engineer - in -charge.   |  | Cum  |  |  |
| 19 |  | 50 mm thick Local/Chunar sand stone flooring over 20 mm (average) thick base of cement mortar 1:5 (1 cement :5 coarse sand) with joints 3 mm thick, side buttered with cement mortar 1:2 (1 cement : 2 stone dust) admixed with pigment to match the shade of stone and pointing with same mortar. Red Chunar sand stone & White Chunar Sand Stone  |  | Sqm  |  |  |
| 20 |  | Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge |  | Sqm  |  |  |

|    |  |   |  |      |  |  |
|----|--|---|--|------|--|--|
| 21 |  | Providing & fixing Sand Stone single piece slab ornamental benches of approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed   |  | Nos. |  |  |
| 22 |  | Providing and fixing sand stone Dustbins in 75 mm thick red sandstone with jali and carving properly shaped as per design of approved size, quality and standard specifications with removable metal bin inside properly fixed to stone body approved design pattern (shape) and specifications including c c 1 :2 :4 grouting, all materials, labor and T & P etc. required for proper completion of work as directed by engineer in charge.                                 |  | Nos. |  |  |
| 23 |  | Providing & fixing of Stainless Steel Pole Mounted Single Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-UF-DB-22-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of engineer in charge. |  | Nos. |  |  |
| 24 |  | Providing & fixing of Stainless Steel Pole Mounted Double Dustbin, (Make Ozone/ Jindal/ J.C.Decaux or Equvellent model no. OZ-UF-DB-33-P) grade 304 , Sheet thickness 1.2mm and Height 816mm OD= 374mm all around diamond shapes perforations mounted with connector rods , Pole of OD 75mm and thickness 1.2mm & pole height 1250mm with 23mm base plate dia and 5mm thickness including grout in cement concrete block etc all complete in direction of engineer in charge. |  | Nos. |  |  |
| 25 |  | Providing & fixing of MS powder coated "U Shape " Dual unit dustbin internal size 325mmx250mmx500mm(H) made of 25x50 box tube as a vertical support & 1.5mm thick MS sheet with laser cut perforation on vertical & bottom baseplate, the whole shall be minimum 60micron powder coated. including grout in cement concrete   |  | Nos. |  |  |
| 26 |  | Providing & fixing of Pedestrian Light height-3000mm light pole and brackets mounted on a chunar stone pedestal with patti pattern (ref-INTACH, Design tool-kit for urban Infrastructure )  |  | Nos. |  |  |
| 27 |  | Wall mounted light at height- 3000mm at 10m c/c along the street  |  | Nos. |  |  |
| 28 |  | Providing & fixing of Informative Signboards as per drawing & Design including All necessary T&P etc all complete in direction of engineer in charge.   |  | Nos. |  |  |
| 29 |  | Plantation of trees (1500mm height) including excavating pit & cowdung, manure sludge with proper watering including One year maintenance with all necessary T&P etc all complete in direction  |  | Nos. |  |  |
| 30 |  | <b>Bitumen Road</b>   |  |      |  |  |

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|     |  |  |  |  |  |  |     |
|-----|--|--|--|--|--|--|-----|
| ### |  | The surface shall be cleaned of all loos extraneous matter by means of mechanical broom, high-ressure air jet received from a compressor or any other approved equipment / method. & Filling up of potholes and sealing of cracks: Any potholes and /or cracks shall be repaired and sealed  |  |  |  |  | Sqm |
| ### |  | Surface dressing on old surface with hot bitumen of grade VG - 10 of approved quality using 1.95 kg of bitumen per sqm with 1.50 cum of stone chippings 11.2 mm nominal size per 100 sqm of road surface, including consolidation with road roller of 6 to 8   |  |  |  |  | Sqm |
| ### |  | Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm ) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achievethe desired density, complete as per specifications and directions of Engineer in   |  |  |  |  | Cum |
| ### |  | Providing and laying Dense Graded Bituminous Macadam using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers as per specifications to achieve the desired compaction and density, complete as per specifcatons and directions of Engineer-in-Charge.<br>50 to 100 mm average compacted thickness with bitumen of grade VG-30 @5% (percentage by weight of total mix) and lime filler @ 2% (percentage by weight of Aggregate) prepared                     |  |  |  |  | Cum |
| ### |  | Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :   |  |  |  |  | sqm |
| ### |  | Providing and laying Bituminous concrete using crushed stone aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site by tippers, laying with paver finisher equiped with electronic sensor to the required grade, level and alignment and rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.<br>40/50 mm compacted thickness with bitumen of grade VG-30 @5.5% (percentage by weight of total mix) and lime filler @ 3% (percentage by weight of Aggregate) prepared in Batch<br>Type Hot Mix Plant of 100-120 TPH capacity. |  |  |  |  | Cum |

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|     |  |   |  |                |  |  |
|-----|--|---|--|----------------|--|--|
| ### |  | Providing and applying 2.5 mm thick road marking strips (retro reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi-automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable |  | Sqm            |  |  |
| ### |  | Supplying & fixing of Pavement Marker (Cat's eye) Type X- ASTM-D- 4956&04 Avery Dimension/3 - m (USA make ) Adherent plotting compound, housing shall contain prismatic two glass covered prismatic reflective face to reflect incident light all   |  | Nos.           |  |  |
| 31  |  | Supplying & Laying of Sand stone Kerb Channel Including PCC. and Mortar etc all complete in direction of engineer in charge   |  | Rm             |  |  |
| 32  |  | Relaying of Existing sand stone including cleaning & Mortar for filling of joints etc all complete in direction of engineer in Charge.  |  | Sqm            |  |  |
| 33  |  | Retro- reflectorized Traffic signs (Providing and fixing of retro- reflectorized cautionary, mandatory and informatory sign as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 1.5 mm thick supported on a mild steel angle iron post 75 mm x 75 mm x 6 mm firmly fixed to the ground by means of properly designed foundation with M15 grade cement concrete 45 cm x 45 cm x 60 cm, 60 cm below ground level as per approved  |  | Nos.           |  |  |
|     |  |   |  | <b>Rs.</b>     |  |  |
|     |  |   |  |                |  |  |
|     |  | <b>TOTAL COST</b>   |  | <b>Say Rs.</b> |  |  |

**Section 8**  
**Letter of Acceptance and Other Forms**

**OFFICE OF THE** *[Insert Title of Executing Authority's Representative]*

NO.....

DATED.....

**LETTER OF ACCEPTANCE**

To,  
M/s.....  
.....  
.....

This is to notify you that on behalf of the Employer, the *[Insert Name of Executing Agency's Authorised Representative]* has accepted your Bid dated ..... for execution of the District-..... for the Contract Price of Rs..... Rs.....only ) is hereby accepted by our Agency.

You are hereby requested to furnish Performance Security, in the form detailed in Cl.32 of ITB for an amount of Rs..... (Rs.....) Within 10 days of the receipt of this letter of acceptance valid up to 45 days from the date of expiry of Defects Liability Period ( i.e. up to ..... ) and sign the contract, failing which action as stated in Cl. 32.3 of ITB will be taken.

Yours faithfully,  
*[Insert Name of Executing Agency's Authorised Representative]*

No. & Dated as above.

**OFFICE OF THE** *[Insert Name of Executing Agency's  
Authorised Representative]*  
**Issue of Notice to proceed with the work**

LETTER NO.....

DATED.....

To,  
.....  
.....  
.....

Dear Sirs:

Pursuant to your furnishing the requisite performance security as stipulated in ITB Clause 32.1 and signing of the contract for the construction of .....for Distt. ...., you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

*[Insert Name of Executing Agency's Authorised Representative]*

**(c) Standard Form of Agreement**

Notes on Standard Form of Agreement

The Agreement should incorporate any corrections or modifications to the Bid resulting from corrections of errors (Instructions to Bidders, Clause 26).

*Standard Form: Agreement*  
**Agreement**

This agreement, made the ..... day of ..... of ..... . Between *[Insert Name of Executing Agency's Authorised Representative]* ..... (Hereinafter called "the Employer") of the one part, and

.....  
.....  
.....

[Name and address of Contractor] (Hereinafter called "the Contractor" of the other part). Whereas the Employer is desirous that the Contractor execute the Work of .....  
District- ..... (Hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the Execution and completion of such Works and the remedying of any defects therein at a cost of Rupees.....  
(Rs.....only)

**NOW THIS AGREEMENT WITNESSETH as follows:**

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract hereinafter referred to, and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the Contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be read and construed as part of this Agreement, viz:
  - i) Letter of Acceptance:
  - ii) Notice to proceed with the works:
  - iii) Contractor's Bid:
  - iv) Contract Data:
  - v) Special Conditions of contract and General Conditions of Contract:

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- vi) Specifications:
- vii) Drawings:
- viii) Bill of Quantities: and
- ix) Any other document listed in the Contract Data as forming part of the contract.



In witness whereof the parties thereto have caused this Agreement to be executed the day and year first before written.

The Common Seal of

*[Insert Executing Agency's Authorized Representative Name]*

was hereunto affixed in the presence of:  
Signed, Sealed and Delivered by the said To,

.....  
.....  
.....

In the presence of: Executive Engineer

Binding Signature of Employer authorized representative

*[Insert Executing Agency's Authorized Representative Name]*

Binding Signature of Contractor

.....  
.....  
.....

**(d) Form of unconditional Bank guarantee for advance payment**  
**BANK GUARANTEE FOR ADVANCE PAYMENT**

To,  
*[Insert Executing Agency's Authorized Representative Name][Insert Name of City]*

Gentlemen:

In accordance with the provisions of the General Conditions of contract, clause 45 ("Advance Payment") of the above-mentioned

Contract, ..... *[name and address of Contractor]* (Hereinafter called "the Contractor") shall deposit with ..... *[Name of Employer]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of ..... *[Amount of guarantee]*<sup>1</sup> .....*[in words]*. We, the .....*[bank or financial institution]*, as instructed by the Contractor, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to..... *[Name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Contractor, in the amount not exceeding .....*[amount of guarantee]* ..... We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed there under or of any of the Contractor documents which may be release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until

\_\_\_\_\_ *[name of Employer]* receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and seal: \_\_\_\_\_

Name of Bank/Financial Institution: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

1. An amount shall be inserted by the bank or financial institution representing the amount of the Advance Payment, and  
Denominated in Indian Rupees.

**(e) Form of unconditional Bank guarantee “Performance Bank Guarantee”).**

**PERFORMANCE BANK GUARANTEE**

To,

*[Insert Executing Agency's Authorized Representative Name][Insert Name of City]*

WREREAS ..... *[Name and Address of Contractor]* (Hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. .... Dated .....to execute .....*[Name of Contract and brief description of Works]* herein after called “The Contract”

AND WHEREAS it has been stipulated by you in the said contract that the contractor shall furnish you with a bank guarantee by a Nationalized Bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract,

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of .....*[amount of guarantee]* .....*[ in words]*, such sum being payable in the types and proportions of currencies in which the Contract price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of ..... *[Amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for a demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contactor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in anyway release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This Guarantee shall be valid until a date 45 days after the expiry of defect liability period including Operation and Maintenance of 5 years after intended completion date.

Signature and seal of the guarantor .....

Name of Bank .....

Address .....

Date .....

**QUALIFICATION INFORMATION**

The information to be filled in by the Bidder in the following pages will be used for Purposes of post qualification as provided for In Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual bidders

1.1 Constitution or legal status of bidder

*[Attach Copy]*

Place of registration: .....

Principal place of business: .....

Power of attorney of signatory of Bid

*[Attach]*

1.2

|   |       |  |
|---|-------|--|
| Total value of Civil Engineering Construction work executed and payments received in the last five years** (in Rs. million) | ..... |  |
|   | ..... |  |
|   | ..... |  |
|   | ..... |  |
|   | ..... |  |

1.3.1 Work performed as prime contractor (in the same name) on works of a similar nature over the last five years \*\*

| Project Name | Name Of The Employer * | Description Of Work | Contact No. | Value Of Contract (Rs. In Lacs.) | Date Of Issue Of Work Order | Stipulated Period Of Completion | Actual Date Of Completion * | Remarks Explaining Reasons For Delay And Work Completed |
|--------------|------------------------|---------------------|-------------|----------------------------------|-----------------------------|---------------------------------|-----------------------------|---|
|              |                        |                     |             |                                  |                             |                                 |                             |   |
|              |                        |                     |             |                                  |                             |                                 |                             |   |
|              |                        |                     |             |                                  |                             |                                 |                             |   |
|              |                        |                     |             |                                  |                             |                                 |                             |   |
|              |                        |                     |             |                                  |                             |                                 |                             |   |
|              |                        |                     |             |                                  |                             |                                 |                             |   |

1.3.2 Quantities of work executed as prime contractor (in the same name and style) in the last five years:

| Year  | Name Of The Work | Name Of The Employer | Quantity Of Work performed @  |                                  |  | Remarks* (Indicated contract ref.) |
|-------|------------------|----------------------|---|----------------------------------|--|------------------------------------|
|       |                  |                      | Earthworks in both excavation and embankment (combined quantity)(cum) | Granular Sub Base and base (cum) | Plant Mix paver laid Bituminous Work (cum) |                                    |
| ..... |                  |                      |   |                                  |  |                                    |
| ..... |                  |                      |   |                                  |  |                                    |
| ..... |                  |                      |   |                                  |  |                                    |
| ..... |                  |                      |   |                                  |  |                                    |

\* Attach certificate (s) from the Engineer - In - Charge

@ The item of work for which data is requested should tally with specified in ITB clause 4.5A(c)

\*\* Immediately preceding the financial year in which bids are received

☑☑ Attach certificate from chartered Accountant

1.4 Information on bid capacity (works for which bids have been submitted and works which are yet to be completed) as on the date of this bid

(a) Existing Commitments and on-going works:

| Description Of Work | Place & State | Contract No. & Date | Name And Address Of Employer | Value Of Contract (Rs. In Lacs.) | Stipulated Period Of Completion | Value Of Works* Remaining To Be Completed (Rs. In Lacs.) | Anticipated Date Of Completion |
|---------------------|---------------|---------------------|------------------------------|----------------------------------|---------------------------------|--|--------------------------------|
|                     |               |                     |                              |                                  |                                 |  |                                |
|                     |               |                     |                              |                                  |                                 |  |                                |
|                     |               |                     |                              |                                  |                                 |  |                                |
|                     |               |                     |                              |                                  |                                 |  |                                |

(b) Works for which bids already submitted

| Description Of Work | Place & State | Name And Address Of Employer | Estimated Value Of Works (Rs. In Lacs.) | Stipulated Period Of Completion | Date When decision is expected | Remarks, If Any |
|---------------------|---------------|------------------------------|---|---------------------------------|--------------------------------|-----------------|
|                     |               |                              |   |                                 |                                |                 |
|                     |               |                              |   |                                 |                                |                 |
|                     |               |                              |   |                                 |                                |                 |
|                     |               |                              |   |                                 |                                |                 |

\* Attach certificate (s) from the Engineer - In - Charge

1.5 The following items of Contractor’s Equipment are essential for carrying out the works. The bidder should list all the information requested below. Refer also to sub clause 4.3 (d) of the instructions to bidders.

| Item Of Equipment | Requirement Nos. | Availability Proposal          |              |                        | Remarks (From Whom to be purchased |
|-------------------|------------------|--------------------------------|--------------|------------------------|------------------------------------|
|                   |                  | Owned/Released/ To be procured | Nos/Capacity | Year (Model)/Condition |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |
|                   |                  |                                |              |                        |                                    |

@ As Per Annex 1 of section 1 - Instruction to bidders

1.9 Qualification and experience of key personnel proposed for administration and execution of the contract attach biographical data. Refer also to sub clause 4.3 (e) and 4.5 (B) (b) of instructions to bidders and sub clause 9.1 of the conditions of contract

| Position         | Name | Qualification | Experience (years) in general | Experience In The Proposed Position |
|------------------|------|---------------|-------------------------------|-------------------------------------|
| Project Manager  |      |               |                               |                                     |
| Project Engineer |      |               |                               |                                     |
| Site Engineer    |      |               |                               |                                     |
| Site Supervisor  |      |               |                               |                                     |
|                  |      |               |                               |                                     |
|                  |      |               |                               |                                     |

1.7 Proposed subcontracts and firms involved. [Refer ITB Clause 4.3 (j)]

| Sections Of The Works | Value of Sub Contract | Sub-Contractor (Name And Address) | Experience In Similar Work |
|-----------------------|-----------------------|-----------------------------------|----------------------------|
|                       |                       |                                   |                            |
|                       |                       |                                   |                            |
|                       |                       |                                   |                            |
|                       |                       |                                   |                            |
|                       |                       |                                   |                            |

- 1.8 Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.
- 1.9 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit. etc. List them below and attach copies of support documents {sample format attached}.
- 1.10 Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.
- 1.11 Information on litigation history in which the bidder is involved.

| Other Party (ies) | Employer | Cause of Dispute | Amount Involved | Remarks/Present Status |
|-------------------|----------|------------------|-----------------|------------------------|
|                   |          |                  |                 |                        |
|                   |          |                  |                 |                        |
|                   |          |                  |                 |                        |
|                   |          |                  |                 |                        |
|                   |          |                  |                 |                        |

1.12 Statement of compliance under the requirement of Sub Clause 3.2 of the instruction to bidders.

.....  
 .....  
 ...

1.13 Proposed work method and schedule. The bidder should attach description, drawings and charts as necessary to company with the requirement of the bidding documents. [Refer ITB Clause 4.1 and 4.3 (k)].

- 2. Joint Ventures - Deleted
- 3. Additional Requirements

3.1 Bidders should provide any additional information required to fulfill the requirements of clause 4 of the instruction to bidders, if Applicable

.....  
 .....  
 .....

PWD-T-4

**कार्यालय जिला मजिस्ट्रेट**

**चरित्र प्रमाण-पत्र**

सततपत्रित अधिकारी द्वारा प्रमाणित यासपीट साइन का नवीनतम कोलाकाक अस्था किया जाये

1. आवेदक का नाम श्री/श्रीमती.....
2. पिता/पति का नाम श्री.....
3. आयु.....
4. शैक्षिक योग्यता.....
5. व्यवसाय.....
6. पता :- (अ) स्थाई पता दूरभाष सहित.....
- (ब) अस्थाई पता दूरभाष सहित.....

7. अपराधिक मुकदमों का विवरण.....

(व्यक्ति के विरुद्ध जनपद में दर्ज मुकदमों, अपराधिक गतिवित्तियों और असाधारणिक कार्यों का विवरण दिया जाये। यदि किसी न्यायालय में अपराधिक मुकदमा चल रहा है तो उसका विवरण भी दिया जाये। यदि लोक निर्माण विभाग अथवा राज्य सरकार के अन्य विभागों द्वारा ब्लैक लिस्टेड किया गया हो तो उसका विवरण भी दिया जाये। माफिया/गैंगस्टर गतिवित्तियों एवं संगठित अपराधों में लिप्त व्यक्तियों के बारे में विशेष रूप से जाँच करने के बाद ही प्रमाण पत्र निर्गत किया जाये और इसका उल्लेख इस कॉलम में अवश्य किया जाये।

8. सामान्य ख्याति.....

9. प्रमाण-पत्र :-

मेरे द्वारा श्री.....के कार्य और आचरण तथा चरित्र के सम्बन्ध में पूरी तथ्यात्मक जानकारी कर ली गई है। इनके विरुद्ध अपराधिक मुकदमों की सूचना भी पुलिस से प्राप्त की गई है। सभी तथ्यों की जानकारी के पश्चात मैं प्रमाणित करता हूँ कि श्री.....का कार्य और आचरण तथा चरित्र उचित है और इनके लोक निर्माण विभाग में अथवा राज्य सरकार के किसी विभाग में ठेकेदार का कार्य करने पर सामान्यतः आपत्ति प्रतीत नहीं होती है।

दिनांक.....

हस्ताक्षर  
जिला मजिस्ट्रेट/कलेक्टर  
(मुहर सहित)

नोट :-

1. जिला मजिस्ट्रेट/कलेक्टर द्वारा यह प्रमाण-पत्र अपने स्वयं के हस्ताक्षर से निर्गत किया जायेगा। उसके स्थान पर किसी अन्य अधिकारी द्वारा प्रमाण-पत्र निर्गत नहीं किया जायेगा।





2. प्रमाण-पत्र देने के पूर्व वह आवश्यकतानुसार वरिष्ठ पुलिस अधीक्षक/पुलिस अधीक्षक/तहसीलदार/एस०डी०एम०/अपर जिलाधिकारी अथवा किसी अन्य अधिकारी से जाँच कराकर रिपोर्ट प्राप्त कर सकते हैं।
3. सम्बन्धित व्यक्ति से स्वघोषणा शपथ-पत्र भी ले सकते हैं।
4. यह प्रमाण-पत्र सामान्यतः दो वर्षों के लिए मान्य होगा। यदि इससे पूर्व कोई अपराधिक घटना होती है अथवा प्रार्थी के विरुद्ध कोई अपराधिक मुकदमा आदि दर्ज होता है या वह किसी संगठित अपराध में या माफिया गतिविधियों में या असामाजिक गतिविधियों में पकड़ा जाता है तो पुलिस विभाग का यह उत्तरदायित्व होगा कि इसकी सूचना वह जिला मजिस्ट्रेट/कलेक्टर तथा सम्बन्धित विभाग के अधिकारियों को देगा और प्रमाण-पत्र तत्काल निरस्त किया जायेगा।
5. इन प्रमाण-पत्रों की प्रविष्टि जिलाधिकारी कार्यालय में तथा वरिष्ठ पुलिस अधीक्षक/पुलिस अधीक्षक कार्यालय में एक अलग रजिस्टर में विधिवत अंकित की जायेगी और निर्गत प्रमाण-पत्र की एक प्रमाणित फोटो प्रति रजिस्टर में अवश्य रखी जायेगी।
6. इस प्रमाण-पत्र के निर्गत करने अथवा निरस्त करने के सम्बन्ध में अन्तिम निर्णय सम्बन्धित जिला मजिस्ट्रेट/कलेक्टर का होगा।
7. निर्गत प्रमाण-पत्र की एक कार्यालय प्रति (Office copy) वरिष्ठ पुलिस अधीक्षक/पुलिस अधीक्षक कार्यालय में अवश्य रखी जायेगी और एक अलग रजिस्टर में प्रविष्टि अंकित की जायेगी जिससे रिकार्ड रहे।
8. सम्बन्धित व्यक्ति द्वारा पासपोर्ट साइज का अपना नवीनतम फोटोग्राफ, जो राजपत्रित अधिकारी द्वारा प्रमाणित हो, चरित्र प्रमाण-पत्र के ऊपर निर्धारित स्थान पर चस्पा किया जायेगा।

PWD-T-5

**कार्यालय जिला मजिस्ट्रेट.....**

**हेसियत प्रमाण-पत्र**

राजमण्डित अधिकारी द्वारा प्रमाणित पावरोड वाहन का नवीनतम फोटोग्राफ चरणा किया जाये

1. प्रार्थी का नाम (व्यक्ति/ फर्म/ संस्था का नाम).....
2. पिता/पति का नाम.....
3. पता :- (अ) रथार्ड पता दूरमात्र सहित.....
- (ब) अस्थार्ड पता दूरमात्र सहित.....
4. व्यवसाय.....
5. सम्पत्ति का विवरण :- जिला मजिस्ट्रेट/ कलेक्टर के द्वारा चल/अचल सम्पत्ति/ हेसियत के सम्बन्ध में पूरा विवरण निम्न प्रकार से दिया जाये -
  - (I) अचल सम्पत्ति :- जमीन/ भूखण्ड/ मकान/ दुकान/ व्यवसायिक प्रतिष्ठान/ उद्योग घन्घे आदि का पूरा विवरण। यह सम्पत्ति ठेकेदार के नाम है अथवा किसी अन्य व्यक्ति के नाम से है, इसका स्पष्ट उल्लेख किया जाये। इस सम्बन्ध में सक्षम अधिकारी द्वारा निर्गत प्रमाण-पत्र संलग्न किया जाये। सम्पत्ति का मूल्यांकन/ बाजार मूल्य तथा सम्पत्ति बैंक अथवा किसी वित्तीय संस्था में मार्गेज हो तो उसका विवरण भी दिया जाये।
  - (II) चल सम्पत्ति :- मोटर वाहन/ निर्माण कार्यों में प्रयुक्त मशीनों तथा अन्य चल सम्पत्ति का पूरा विवरण दिया जाये। यह सम्पत्ति ठेकेदार के नाम है अथवा किसी अन्य व्यक्ति के नाम से है, इसका स्पष्ट उल्लेख किया जाये। इस सम्बन्ध में सक्षम अधिकारी द्वारा निर्गत प्रमाण-पत्र संलग्न किया जाये। सम्पत्ति का मूल्यांकन/ बाजार मूल्य कितना है। यह सम्पत्ति बैंक अथवा किसी वित्तीय संस्था में मार्गेज हो तो उसका विवरण भी दिया जाये।
6. बैंक अथवा वित्तीय संस्था में कोई धनराशि हो तो इसके लिए बैंक का नाम/ खाता संख्या एवं उसमें रखी धनराशि का विवरण दिया जाये। इसके लिए बैंक अथवा वित्तीय संस्था द्वारा निर्गत प्रमाण-पत्र संलग्न किया जाये।
7. हेसियत प्रमाण-पत्र के लिए हेसियत के रूप में यदि बैंक में जमा धनराशि दर्शायी जाती है तो वह धनराशि कम से कम तीन माह पहले से बैंक में जमा होनी चाहिए और कार्य पूरा होने तक बैंक में अवश्य जमा रहनी चाहिए।
8. प्रार्थी का पैन नम्बर..... है।

मेरे द्वारा श्री (यहाँ व्यक्ति/फर्म/संस्था आदि का नाम लिखा जाये).....की चल और अचल सम्पत्ति के बारे में तथ्यों की जानकारी कर ली गई है और उसका विवरण उपरोक्तानुसार दिया गया है।

मैं प्रमाणित करता हूँ कि मेरी जानकारी में उपरोक्त सभी तथ्य सही है और तथ्यात्मक रिपोर्ट के आधार पर यह प्रमाण-पत्र निर्गत किया जा रहा है।

दिनांक.....

हस्ताक्षर  
जिला मजिस्ट्रेट/कलेक्टर  
(मुहर सहित)

नोट :-

1. जिला मजिस्ट्रेट/कलेक्टर द्वारा यह प्रमाण-पत्र अपने स्वयं के हस्ताक्षर से निर्गत किया जायेगा। उसके स्थान पर किसी अन्य अधिकारी द्वारा प्रमाण-पत्र निर्गत नहीं किया जायेगा।
2. प्रमाण-पत्र देने के पूर्व यह आवश्यकतानुसार तहसीलदार/एस०डी०एम०/अपर जिलाधिकारी/बैंक अधिकारी अथवा किसी अन्य अधिकारी से जाँच कराकर रिपोर्ट प्राप्त कर सकते हैं।
3. सम्बन्धित व्यक्ति से स्वघोषणा शपथ-पत्र भी ले सकते हैं।
4. यह प्रमाण-पत्र सामान्यतः दो वर्षों के लिए मान्य होगा। यदि इससे पूर्व कोई महत्वपूर्ण विक्रय आदि होता है अथवा सम्पत्ति में परिवर्तन होता है या कमी आती है तो सम्बन्धित व्यक्ति का यह उत्तरदायित्व होगा कि इसकी सूचना वह जिला मजिस्ट्रेट/कलेक्टर तथा सम्बन्धित विभाग के अधिकारियों को देगा और प्रमाण-पत्र में संशोधन जारी किया जायेगा।
5. इन प्रमाण-पत्रों की प्रविष्टि जिलाधिकारी कार्यालय में एक अलग रजिस्टर में विधिवत अंकित की जायेगी और निर्गत प्रमाण-पत्र की एक प्रमाणित फोटो प्रति रजिस्टर में अवश्य रखी जायेगी।
6. इस प्रमाण-पत्र के निर्गत करने अथवा निरस्त करने के सम्बन्ध में अन्तिम निर्णय सम्बन्धित जिला मजिस्ट्रेट/कलेक्टर का होगा।
7. सम्बन्धित व्यक्ति द्वारा पासपोर्ट साइज का अपना नवीनतम फोटोग्राफ, जो राजपत्रित अधिकारी द्वारा प्रमाणित हो, हैसियत प्रमाण-पत्र के ऊपर निर्धारित स्थान पर चस्पा किया जायेगा।



## शपथ-पत्र

मैं.....पुत्र श्री.....निवासी  
 (स्थायी पता).....  
 (अस्थायी पता).....  
 का निवासी हूँ। मैं शपथपूर्वक निम्न घोषणा करता हूँ।

राजपत्रित अधिकारी  
 द्वारा प्रमाणित  
 पासपोर्ट साइज का  
 नवीनतम फोटोग्राफ  
 चस्पा किया जाये

1. मैं लोक निर्माण विभाग का ए/बी/सी/डी श्रेणी का पंजीकृत ठेकेदार हूँ। (विभाग द्वारा निर्गत श्रेणी सम्बन्धी प्रमाण-पत्र संलग्न किया जाये) मेरे पास पर्याप्त चल और अचल सम्पत्ति है और व्यवसायिक रूप से मैं लोक निर्माण विभाग के कार्यों को पूरा करने के लिए सक्षम और समर्थ हूँ। मेरे पास आवश्यक मशीनें और उपकरण आदि भी हैं तथा मुझे इस कार्य का पर्याप्त अनुभव है।
2. लोक निर्माण विभाग द्वारा जो (कार्य का विवरण लिखा जाये).....कराने की निविदा निर्गत की गई है उसके लिए मैं विभाग द्वारा निर्धारित प्रारूप पर निविदा भर रहा हूँ।
3. मेरे द्वारा दिये जा रहे प्रमाण-पत्र/चरित्र प्रमाण-पत्र/हैसियत प्रमाण-पत्र/आयकर प्रमाण-पत्र/व्यापार कर प्रमाण-पत्र/बीड सेक्योरिटी प्रमाण-पत्र/बीड कैपिसिटी प्रमाण-पत्र/जमानत धनराशि आदि का प्रमाण-पत्र तथा अन्य सुसंगत अभिलेख आदि मूलरूप में निविदा पत्र के साथ संलग्न कर दिये गये हैं।
4. मेरा पैन नम्बर.....है। (आयकर विभाग द्वारा प्रदत्त प्रमाण-पत्र संलग्न किया जाये)।
5. मेरे विरुद्ध अपराधिक मुकदमों का विवरण निम्न प्रकार है। यहाँ पूरा विवरण दिया जाये।
  1. मुकदमा नम्बर.....
  2. धारार्यें.....
  3. थाना.....
  4. जनपद.....
  5. न्यायालय (जहाँ मुकदमा चल रहा है).....
6. मैं लोक निर्माण विभाग अथवा राज्य सरकार के अन्य विभागों द्वारा ब्लैक लिस्टेट ठेकेदार की श्रेणी में नहीं आता हूँ। मैं अपराधिक गतिविधियों, माफिया तथा गैंगस्टर गतिविधियों और संगठित अपराध करने की गतिविधियों और असामाजिक कार्यों आदि में लिप्त नहीं हूँ। मैं माफिया और अपराधी नहीं हूँ। मेरा चाल-चलन, कार्य तथा आचरण उत्तम है।
7. मेरे विरुद्ध जनपद में तथा प्रदेश में कोई भी मुकदमा दर्ज नहीं है।
8. यदि ठेका प्राप्त करने के पश्चात मेरे विरुद्ध माफिया गतिविधियों/असामाजिक गतिविधियों एवं संगठित अपराधिक गतिविधियों में लिप्त होने के बारे में कोई शिकायत प्रमाणित पायी जाती है तो सक्षम अधिकारी को यह अधिकार होगा कि मेरा ठेका/अनुबन्ध निरस्त कर दे। इस पर मुझे कोई आपत्ति नहीं होगी। मेरे द्वारा यदि विभाग/राज्य सरकार के विरुद्ध कोई अपराधिक कृत्य किया जाता है अथवा सरकारी धन का गबन किया जाता है तो सक्षम अधिकारी को यह अधिकार होगा कि वह मेरे विरुद्ध अपराधिक मुकदमा नियमों के अन्तर्गत दर्ज कराये।

9. मैं अनुबन्ध की शर्तों के अनुसार समय से, पूरी गुणवत्ता के साथ तथा निर्धारित विशिष्टियों के अनुरूप कार्य पूरा करूंगा और विभाग को पूरा सहयोग प्रदान करूंगा।
10. मेरा कार्य एवं आचरण उत्तम है।
11. मैं शपथपूर्वक घोषणा करता हूँ कि मेरा स्थायी पता और अस्थायी पता निम्न प्रकार है :-  
(अ) स्थायी पता (दूरभाष सहित).....  
(ब) अस्थायी पता (दूरभाष सहित).....  
(यहाँ पूरा पता दूरभाष सहित एवं पिनकोड सहित लिखा जाये)।
12. मैं शपथपूर्वक घोषणा करता हूँ कि मैं उपरोक्त पते पर रहता हूँ तथा विभाग द्वारा प्रदान किये गये कार्य का पूरा होने तक मेरे किसी पते में सामान्यतः कोई परिवर्तन नहीं होगा। यदि अपरिहार्य परिस्थितियों में किसी पते में परिवर्तन होता है तो इसकी सूचना तत्काल अधिशासी अभियन्ता, लोक निर्माण विभाग और जिला मजिस्ट्रेट/कलेक्टर को दूंगा।
13. मैं यह भी घोषणा करता हूँ कि विभाग के जिस कार्य के लिए मेरे द्वारा ठेका लिया जा रहा है उसके सापेक्ष चल एवं अचल सम्पत्ति का हैसियत प्रमाण-पत्र जिला मजिस्ट्रेट/कलेक्टर (जनपद का नाम लिखा जाये).....द्वारा प्राप्त करके मूलरूप से संलग्न किया जा रहा है। यह भी घोषणा करता हूँ कि इस हैसियत प्रमाण-पत्र का उपयोग अन्य कार्यों के लिए नहीं किया जायेगा।
14. मैं अपनी पूर्ण जानकारी में पूरे होशों-हवाश में, स्वस्थचित्त, पूरी सत्यनिष्ठा एवं स्वेच्छा से यह शपथ-पत्र लिखकर दे रहा हूँ। ईश्वर मेरी मदद करें।

दिनांक.....

शपथी का पूरा हस्ताक्षर  
पूरा नाम  
पता

नोट :-

1. यह स्वघोषणा शपथ-पत्र रु० 100/- (रु० एक सौ) के स्टाम्प पेपर (Stamp Paper) पर नोटरी द्वारा साक्ष्यों की उपस्थिति में सत्यापित कराते हुए दिया जायेगा।
2. असत्य शपथ-पत्र देना एक संगीन और संज्ञेय अपराध है।
3. सम्बन्धित व्यक्ति द्वारा पासपोर्ट साइज का अपना नवीनतम फोटोग्राफ, जो राजपत्रित अधिकारी द्वारा प्रमाणित हो, शपथ-पत्र के ऊपर निर्धारित स्थान पर चस्पा किया जायेगा।