



Varanasi Smart City Limited, Varanasi

Request for Proposal (RFP) for

**Urban Revitalization of Roads and Junction
Improvement Project in ABD area (Phase-I),
Varanasi**

RFP No. 10/VSCL/SMART R&J/MAR-18

**Varanasi Smart City Limited (VSCL), Office of Nagar Nigam,
Sagra, Varanasi, UP-221010**

Issued on: 24.03.2018

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SECTION 1

- **LIST OF IMPORTANT DATES**
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SECTION I**List of Important Dates of Bids for the project**

S. No.	Activity	Timeline
1.	Name of Work	Urban Revitalization of Roads and Junctions Improvement project in ABD area (Phase-I)
2.	Completion Period for Construction	12 Months including rain season
3.	Date of issue of Notice Inviting Bid	24 th March 2018
4.	Period and Places of sale of Bidding Documents	From 24 th March to 16 th April until 17:00 hrs Places: (i) Chief Executive Officer, VSCL address- CEO, VSCL Nagar Nigam, Varanasi Contact no. 0542-2221702 and through mail at ceovscl@gmail.com (ii) Website: www.nnvns.org and www.smartnet.niua.org
5.	Last date for Pre-bid queries	31.03.18 until 17:00 hrs
6.	Time, Date and Place of pre-bid meeting	Date: 3 rd April, 2018 Time: 15:00 Hrs. Place: Conference hall, Ground Floor – Nagar Nigam Sagra, Varanasi
7.	Deadline of receiving e-bids	Date: 16 th April, 2018 Time: 17:00 Hrs.
8.	Technical Bid opening	Date: 18 th April, 2018 Time: 15:00 Hrs.
9.	Bid Validity Period	120 Days
10.	Offer Inviting Authority	Chief Executive Officer, VSCL

Section 1
NOTICE INVITING TENDER (e-tender)

VARANASI SMART CITY LTD. (VSCL)
O/o Municipal Corporation, Varanasi


NIT No.: 10/VISCL/TENDER/2017-18

Dated: 22/03/2018

1. The Chief Executive Officer (CEO) Varanasi Smart City Ltd. (VSCL) invites sealed tender for the following works:-

Sl. No.	Name of the Projects	Tender Fee non-refundable (Rs.)	Earnest Money Deposit (Rs.)
(i)	Improvement and Up-gradation of 8 Road Intersection (Phase – II), in Varanasi (including 5 years O&M) RFP No. 09/VISCL/SMART JUNCTIONS/MAR-18	15,000/-	20.00 Lacs.
(ii)	Urban Revitalization of Roads and Junction Improvement Project in ABD area (Phase-I), Varanasi RFP No. 10/VISCL/SMART R&J/MAR-18	25,000/-	75.00 Lacs.

2. The tender documents can be downloaded from the e-tendering website -<http://etender.up.nic.in> from 24/03/2018 from 15:00 Hrs. to 16/04/2018 till 17:00 Hrs.
3. Bidders are requested to submit the Tender fee receipt in the office of Chief Executive Officer, Varanasi Smart City Ltd. (VSCL) in the form of DD/Bankers Cheque issued in favor of “Chief Executive Officer, Varanasi Smart City Limited” payable at Varanasi.
4. Bidders are requested to submit the Earnest Money Deposit (EMD) receipt in the office of Chief Executive Officer, Varanasi Smart City Ltd. (VSCL), in the form as prescribed in the tender document issued in favor of “Chief Executive Officer, Varanasi Smart City Limited” payable at Varanasi.
5. The last date for pre-bid queries is 31/03/2018 till 17:00 Hrs. through e-mail on ceovscl@gmail.com and Pre-bid meeting will be held on 03/04/2018 at 15:00 Hrs. in the Conference Hall, Ground Floor, Municipal Corporation, Sigra, Varanasi.
6. The deadline of bid-submission is 17:00 Hrs. on 16/04/2018 and technical bid opening is on 18/04/2018 at 15:00 Hrs.
7. For more details contact Chief Executive Officer, VSCL address- CEO, VSCL Municipal Corporation Varanasi. Contact no. 0542-2221702 and through mail at ceovscl@gmail.com


CEO/Municipal Commissioner
VSCL/MCV

O/o Municipal Corporation, Varanasi

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.****
- 3.6 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 Qualification shall be fulfilled solely by the Lead Partner; whereas Technical Qualifications and the Key Activities shall be **jointly** fulfilled by 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 Rs.76 Cr. 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) Three similar completed works each costing not less than the amount equal to 40% of the estimated cost (excluding maintenance cost of the project). OR
 - 2) 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
 - 3) 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: Civil work related to Road /Street/ Junction / Corridor Improvement Work on Roads completed in last 5 years.

- **KEY ACTIVITIES – (In case of JV shall be jointly fulfilled by the JV Members)**

Experience in any three of the following categories:

1. Construction of Roads/streets of at least 7.5 kms. or above
2. Construction of Urban drains and/or MEP works on urban roads of at least 1kms. or above
3. Road signage and safety works on roads and/or junction improvements of important traffic junctions.
4. Construction of Footpaths including street-scaping and street furniture of at least 3,000 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. Bid Processing Fee/Tender Fee & Earnest Money;
- II. Qualification information, supporting documents, affidavit and undertaking as specified in Clause 4 of ITB.
- III Any other information / documents required to be completed and submitted by bidders, as specified in the appendix to ITB, and
- IV All the pages of the Tender document to be sealed and signed by the authorized representatives of the bidder.
- V All the formats in the tender documents to be duly filled, sealed and signed.

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;

Note: Financial bid shall be submitted online only. No Hard Copy of Financial Bid is to be submitted.

12.2 The following documents, will be deemed to be part of the bid submitted by bidder

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 The Price bid made by the contractor should exclude the GST and all other taxes and duties should be included in the price bid. For GST refer clause 41.1 on Pg no. 45. Therefore, all the 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 one hundred and twenty days after the deadline date for bid submission specified in Clause 20 of ITB.”

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 onat (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.

31.1.1. 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 **Chief Executive Officer, Varanasi Smart City Limited, Varanasi** Payable at Varanasi, U.P., from a Scheduled Commercial Bank.

32.3 Failure of the successful Bidder to comply with the requirements of Clause 32.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Earnest Money. He will also be debarred from participating future bids under Varanasi 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 Chief Executive Officer, Varanasi Smart City Limited, Varanasi
 (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 any State/Central Govt. organization.
 (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/ 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

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: U.P.P.W.D., Municipal Corporation, Director Local Bodies, R.E.S. and U.P. 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:

Chief Executive Officer, VSCL address- CEO, VSCL Nagar Nigam, Varanasi,
Contact no. 0542-2221702 and through mail at ceovscl@gmail.com

(9.2.1) Place, Time and Date for pre-bid meeting are:
Place: Chief Executive Officer VSCL, Municipal Corporation, Sigra, Varanasi
Time: 15:00 Hrs. **Date:** 03.04.2018

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

- (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 **Rs 75.00 Lacs.**
- (16.2) Fixed Deposit Receipt must be drawn in favour of: **Chief Executive Officer, Varanasi Smart City Limited, Varanasi**
- (16.2) Other acceptable forms of Bid Security pledged in favour of : **Chief Executive Officer, Varanasi Smart City Limited, Varanasi** National savings certificate issued by P&T Deptt., Post Office Saving account Pass book .
- (16.3) Exemption from Earnest Money is granted to: NONE
- (20.1) Bid submission is online submission but hardcopy of the technical bid (Part-I)is also to be submitted.
- (20.1)1. The deadline for submission of bids shall be:
Time: 17.00 Hrs.
Date: 16.04.2018
- (20.1.2) The deadline for submission of bids in hard copy shall be:
Date: 17.04.2018
Time: 17.00 Hrs.
Place: office of Chief Executive Officer Conference hall, Ground Floor -Nagar Nigam Sgra, Varanasi-221010
- (22.1) & (22.6) The date, and time for opening of the Technical Bids online are:
(A) Technical Bid
Date:**18.04.2018**
Time: 15.00 Hrs.
Place office of Chief Executive Officer Conference hall, Ground Floor -Nagar Nigam Sgra, Varanasi-221010
- (B) Financial Bid (For qualified bidder as) for opening online
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:
(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 fulfill 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 **Rs. 76 Cr.** 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) **Three similar completed works each costing not less than the amount equal to 40% of the estimated cost (excluding maintenance cost of the project).**

OR.

2) **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

3) **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.

- 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 – (In case of JV shall be fulfilled by all JV Members)

Experience in any three of the following categories:

1. Construction of Roads/streets of at least 7.5 kms. or above
2. Construction of Urban drains and/or MEP works on urban roads of at least 1 km. or above
3. Road signage and safety works on roads and/or junction improvements of important traffic junctions.
4. Construction of Footpaths including street-scaping and street furniture of at least 3,000 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
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 Place of registration: Principal place of business Power of attorney of signatory of Bid	[attach copy] _____ _____ [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. (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.
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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.

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

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

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 The Engineer in charge shall be deputed by VSCL.
- 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 Equipment;
- c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) 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. Ministry of Housing and Urban Affairs, 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 Institution of Engineer - Local Chapter.”
- (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 Institution of Engineer - Local Chapter shall appoint the arbitrator.
A certified copy of the order of the Institution of Engineer - Local Chapter, 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 Institution of Engineer - Local Chapter.
- 25.5 “Arbitration proceedings shall be held at Varanasi (U.P.) , India”
- 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 equipments 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 Specifications 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 (Request for Inspection) 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/नौ-9-2017-81ज/17 of dated 17.10.2017 and circular no. 89/नौ-9-2018-81ज/2017 dated: 16/02/2018 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 27.3 and 27.4 of ITB, 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: [Cl.1.1]
 Designation: **Chief Executive Officer, VSCL, Varanasi**
 Name of authorized Representative: Dr. Nitin Bansal (IAS)
 Telephone No.(s): (Office) 0542-2227102
 Mobile No
 Electronic mail Identification (E-mail ID) : ceovscl@gmail.com
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: Varanasi U.P.
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; channelizing/widening of existing carriageway as per proposed drawings 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]

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 (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

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

B. 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

13(a) Amount and deductible for insurance are: [Cl. 13.1]

Item	Amount to be insured	Deductibles
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A.	Loss of or damage to the works, Plants and materials	10 % of contract value		Deductibles for insurance shall be as per latest tariff of General Insurance Company of India plus 20% of premium amount for items A, B, C & D
B.	Loss of or damage to equipments	2.5 % of contract value		
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]

Chief Executive Officer , VSCL Varanasi

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 *Chief Executive Officer VSCL, Varanasi*. [Cl 39.2]

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

- (1) 1/8th of the value of entire contract work up to 1/4th of the period allowed for completion of construction.
- (2) 3/8th of the value of entire contract work up to 1/2nd of the period allowed for completion of construction.
- (3) 3/4th of the value of entire contract work up to 3/4th 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
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(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
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- [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)
[Cl51.1]
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 UPPWD/DSR 2016 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 U.P 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

1. INTRODUCTION

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.

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.

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

Varanasi is considered as one of the oldest living cities of the world and is the spiritual capital of the country. Its evolution as the most important holy destination for the hindu religion and the eventual amalgamation of different cultures over a long period of time has given the city a peculiar character and a characteristic physical fabric. Running parallel to the holy river Ganga, the city has gradually spread out on the western parts, the major activities concentrated along the river.

The city has been throughout an exceptional testimony to living traditions of religious faith, rituals, myriads of festivals, traditional and ancient forms of worship and belief that are in the varied expressions of asceticism, spiritual and meditative exercises, education, music, dance, handicrafts and art forms that still continue to be transmitted through generations. The city is also known for its magnificent blend of natural heritage and man made marvels.

The sacred Ganges flowing all along the northern limit of the city and concatenate 6.8 km riverfront Ghats are one of the unique marvels of modern Indian civilization and a civil engineering feat. Numerous temples, most important among them are Vishwanath temple and several inland water bodies, known as Kunds have also shaped the landscape of the city for years. That is how the city represents living urban spaces of universal values possessing historicity, continuity, tradition and spirit of place.

The city has thus developed along these various features and also developed a mobility system connecting these important locations which have grown extensively with time. This probably led to the interwoven network of narrow streets in the area closer to the ghats and river. This network has grown dense in the areas closer to the important places and there are some major narrow roads on which the majority of the transportation and mobility is dependant. The wide roads which we see today have majorly been introduced during the British administration when various available open spaces and streams were converted into wide roads for connectivity.

The advent of modern transport system increased the demand for space for mobility and thus the extensive pressure on the existing roads due to the increased vehicular circulation and ever increasing visitor inflow has made a grim situation.

2. CONTEXT

The proposed work has to be done in context with the existing character of the space and shall not disturb the overall heritage character, of the streets. The paramount necessity is to improve the urban space character on the streets. The proposed design has been done in order to facilitate the activities integral to the space and improve the visitation experience of the visitor. The subject area is an integral part of the significant old heritage area of the Banaras city.

The area for the proposed work stretches from different important junctions of the focus area and to the connecting roads. The internal roads which fall inside the subject area are all part of the proposed works. The ABD area and the junctions under the scope are mentioned in the images further.

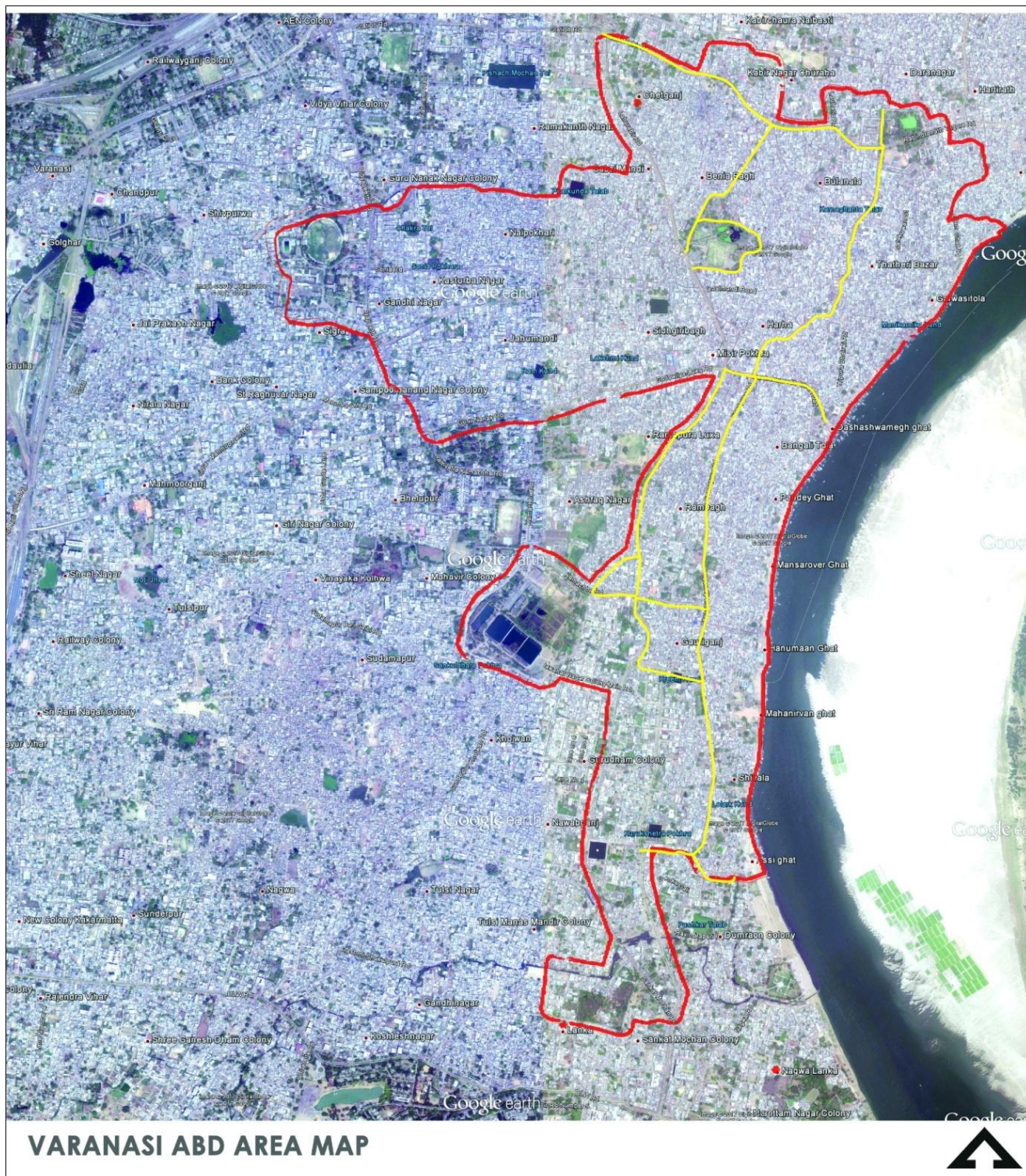


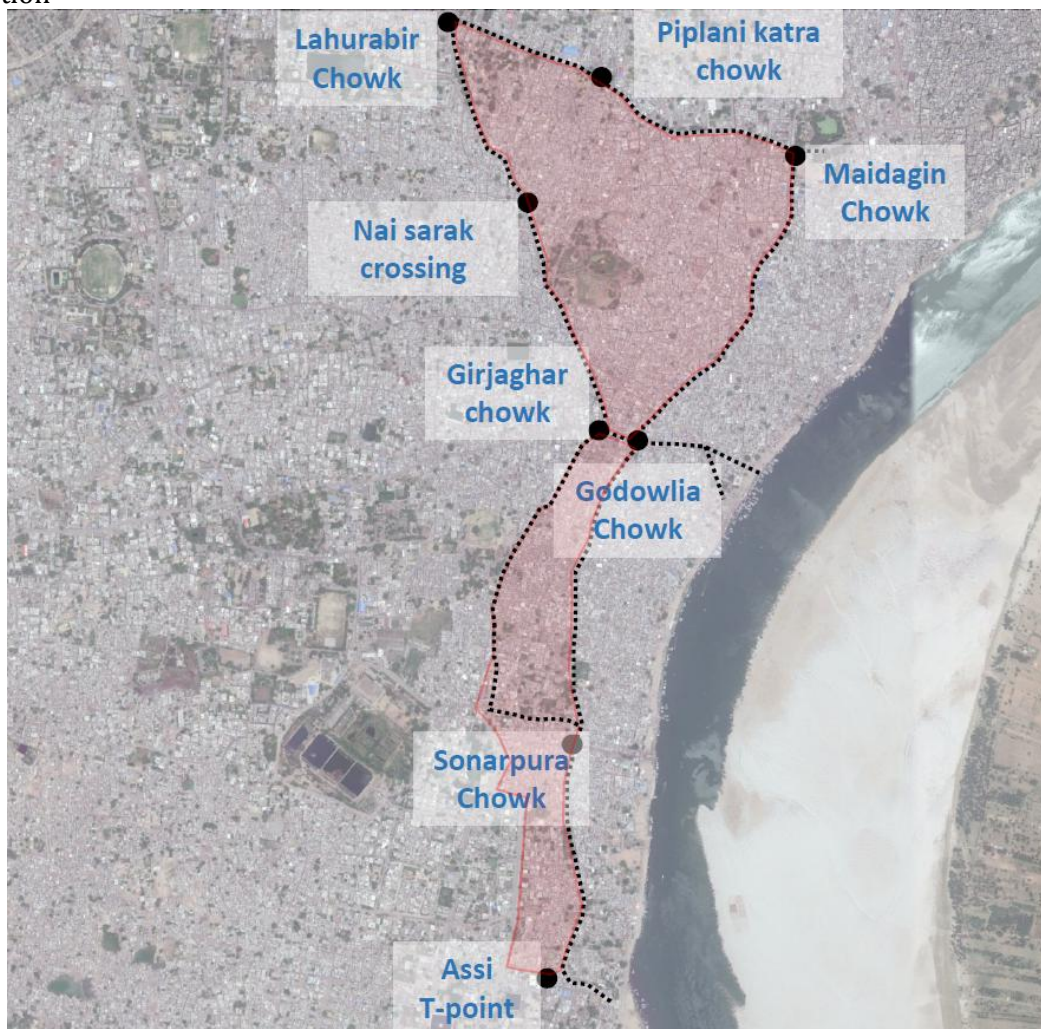
Figure 1 The image shows the ABD area and the roads marked in yellow as the roads under scope of project

The focus area for the smart city mission, under which this project is taken up, has been defined by the characteristic nature of this part of the city due to which it is called the iconic old city of Benares. The total area of the precincts under the Area Based Development is 1389 acres and majorly runs along the river bank and also extends in its north-western part to cover some important parts of the city. The focus shall remain the improvement of the traffic movement and mobility in the ABD area and its connectivity with the other surrounding areas.

SCOPE OF PROJECT

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 existing junctions do not have proper design and essential infrastructure which can facilitate the controlled movement of the traffic. 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. The junctions under the scope of this project are mentioned below;

- Godowlia junction
- Girjaghar junction
- Maidagin Crossing
- Lahurabir crossing
- PiplaniKatra crossing
- Nai-sadak crossing
- Sonarpura crossing
- Assi Tri-Section



Map showing important road stretches and the area of intervention under the project

Other significant part of the project is the urban design and improvement of the connecting roads of the junctions and some of the other roads of the area. Based on the studies and assessments made for the project the entire ABD area has been divided in three zones with the criteria related to the typology of the modal transport and the concentration of activities in these areas. The subject area covered in this part of the project, comprises of zone –B which runs on the west of the Maidagin to Godowlia road and bound by the Lahurabir to Girjaghar road on the other side, further running down south towards Bhelupur. The total length of the roads covered in this part of the project is 10.5kms which comprises of the connecting roads of the junctions as mentioned and some other important roads within the area and integral for the traffic circulation in the area.

Some of the major wide roads connecting the important junctions under the scope of work are mentioned below:

- Girjaghar junction to Godowlia junction
- Godowlia to Dashashwamedhstreet
- Godowlia to MaidaginChowk
- Maidagin to Lahurabir junction via Kabirchaura
- Godowlia junction to Assi crossing via Sonarpurachowk
- Girjaghar junction to Bhelupur junction
- Bhelupur (thana) junction to Sonarpurachowk

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 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.

PURPOSE

During construction works for road improvement plan of the major road stretches of about 10.5 kms including landmark locations as Godowliya, Dashashmedh street, Girijaghar, Assi T-point, Lahurabir etc.; 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 stretch 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 Varanasi 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 2: 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

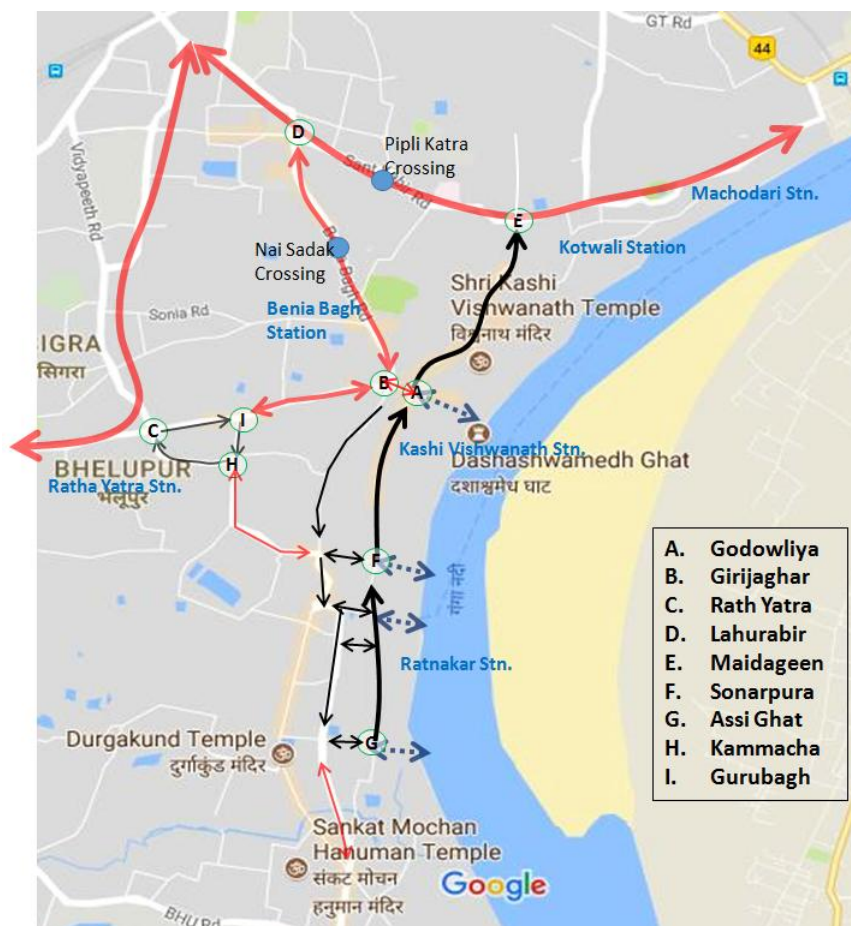
Signs that shall be used at the construction site and the carriageways are as provided in the figure given below, and not limited to only the provided signs but also all the relevant signs used during construction activities and blockages along roadways. Any new signage or line marking developed specifically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



Figure 3: Sample signage's

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

- Assi T point to Godowliya to Maidagin
- Girijaghar to Assi T-point completing the one way loop
- Rathyatra to Gurubagh to Kamacha to Rathyatra



Following points to be considered:

The trial run to be carried out for at least 2 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 to be published in the newspapers and handouts to be distributed to inform the local public of the area, starting from atleast 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.

Stakeholder and public consultation is a part of the project and it is the job of contractor to organize stakeholder consultation meetings on minimum two occasions where the proposed aspects of the project shall be discussed and the public shall be made aware regarding the advantages and long term benefits of the proposed traffic and road features. The objective of the consultation will be to create a positive environment with the user which is the local community and develop a sense of ownership within the local population so that the proposed features are constructively accepted by the public and streamlining of the traffic can be done. There is a need to educate the local public about the merits of the project and streamlined traffic movement, traffic rules, awareness about road safety etc and therefore this aspect of stakeholder consultation is included as part of job in the project.

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, Varanasi
- Varanasi Development Authority
- U.P.P.W.D
- Jal Nigam
- JalSansthan/ Ganga Pollution Control Board
- Police Department (Traffic)
- PUVVNL
- 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. VSCL will act as the nodal agency and assist the bidder in coordination with the respective departments in case of any challenge arising with respective department regarding the execution of the work.

3.2 Challenges

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 of organized road infrastructure. There have been various interferences in the subject area related to the infrastructure through a long period of time, majorly 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

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 in 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 however a provision of cost for such specific hindrances have been included 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.
- A provision of retrofitting and repair of the connecting alleys and chunar stone streets has been taken such as those streets opening onto the main street are corrected and a length of around 15-20 mts is repaired as per the drawing provided to the contractor so and upgrade the connections of the alleys to the main road. In this situation, 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 streets and the connections to the main road are organized and streamlined.
- The road connecting the Godowlia chowk to Girjaghar crossing has major service lines and presumably a large void or water-channel runs beneath the ground level and careful measures to be taken while working on this stretch and further on the Dashashwamedh street, considering the

importance of the road and major confluence of underground services present there. Issues and specific execution plan to be reported in detail to the Architect/Engineer incharge of the PMC.

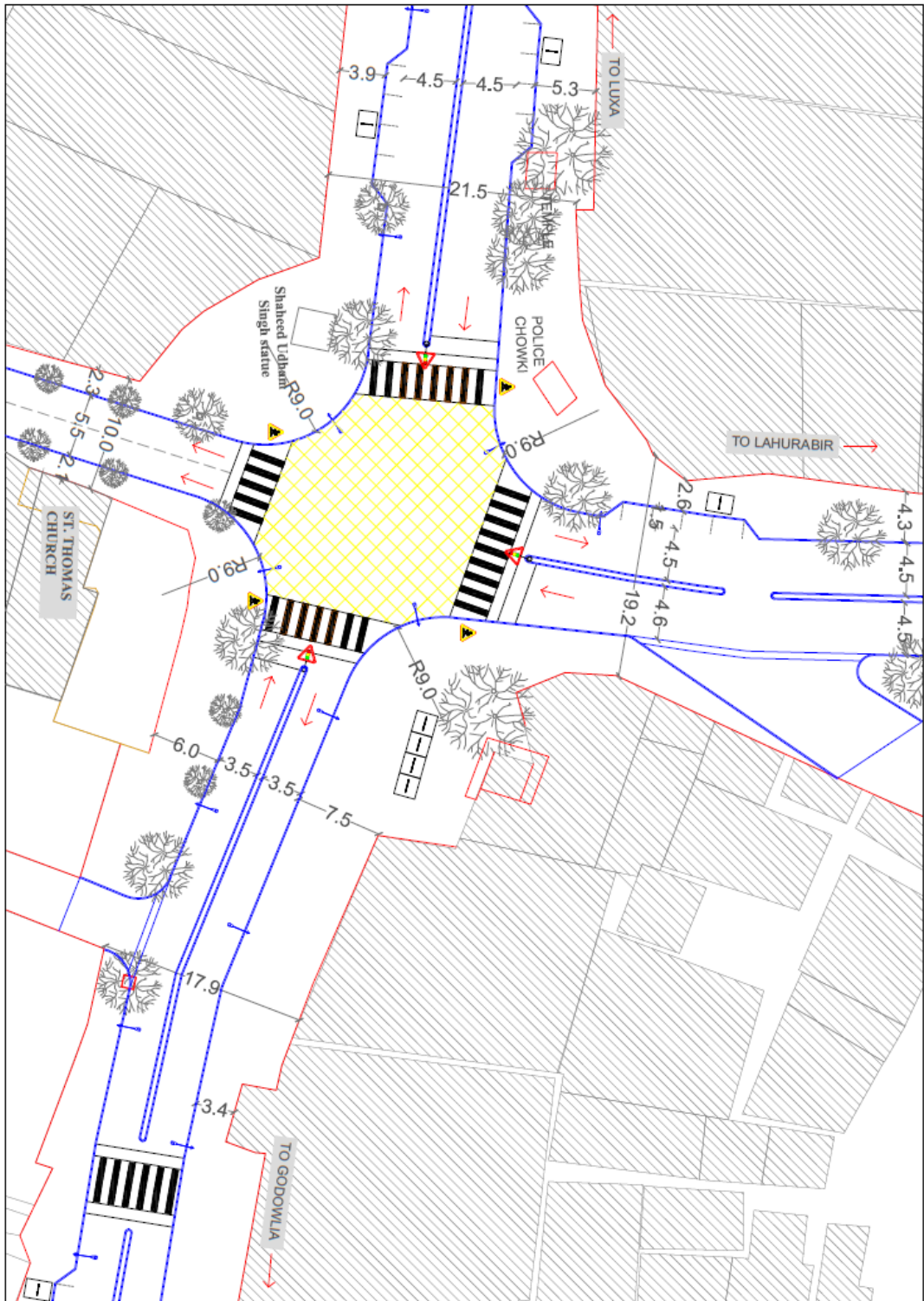
- It is integral for the contractor to consider the required quantity and the respective amount incurred related to the existing services interfered or essential services required (only related to existing scenario) so as to execute the project related work.
- Contractor will conduct O&M for the works under scope at rates agreed at the time of bidding during the period of contract. However, regarding any future interventions by any other agencies working in the subject area, VSCL will ensure recovery of the costs of resurfacing/repairing incurred by the contractor due to additional interventions from the respective department.
- VSCL will give assistance in providing clear area on site in terms of encroachment clearances and unauthorized obstructions. Traffic diversions and other issues related to enforcement shall be dealt by VSCL with support of contractor.
- The Contractor should follow measures so as to cause minimum harm to the environment in terms of reducing the dust particles caused by the construction work on site, avoiding any spillage of lubricants or toxic waste on the site. Following measures should be followed regarding the environment and health.
 - It shall be the responsibility of the Contractor to clear away, from time to time all debris and excess material generated by the activities of his workers.
 - Sprinkling of water should be performed at the construction site to avoid the release of dust particles in the air.
 - Washing of the tyres of the large vehicles such as loading trucks etc. leaving from the site should be performed in order to reduce the release of dust particles in the atmosphere.
 - All vehicles involved at the construction site including the loading vehicles should have a valid pollution certificate and they should follow pollution safety norms.
 - There must be enclosed and separate storage for toxic construction materials such as oil, lubricants etc in order to avoid any spillage in the open area.
 - The sandstone cutting or similar material cutting practice which has the tendency of release of fine dust particles should be performed in a separate room or enclosure with appropriate standard scrubber to avoid the release of particles in the atmosphere.
 - Safety measures as per the government norms should be followed for the construction workers on the site including the use of safety helmets, masks and long boots by the workers.

6. CONCEPT DESIGN

6.1 Full set of drawings

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

S.No.	Drawing Title	Dwg no.
1	Plan – Girjaghar Chowk	A-2.1/Jn1/VSCL
2	Plan - Godowlia Chowk	A-2.1/Jn2/VSCL
3	Plan - Maidagin crossing	A-2.1/Jn3/VSCL
4	Plan- Sonarpura Crossing	A-2.1/Jn7/VSCL
5	Road Section 1 – Girjaghar to Godowlia Godowlia to Maidagin	A-3.1/St/VSCL
6	Road Section 2- Godowlia to DashashwamedhGhat	A-3.2/St/VSCL
7	Typical cross-sectional detail- wide roads	A-7.1a/St/VSCL
8	Before-After View Bhelupur to Girjaghar	A-7.3/St/VSCL



LAYOUT FOR GIRGAON CHOWK

GENERAL NOTES:

- All dimensions are in millimeters and all measurements unless otherwise specified.
- All levels are in meters and are finished unless otherwise specified. All levels are indicated thus: \uparrow LVL (mm)
- Do not scale drawings. Only written dimensions shall be followed. Any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
- The drawings shall be completed and read in conjunction with relevant consultant's approved drawings for services, electrical, plumbing for drainage and rigging.
- For details such as pavements, fencing, railing, grills, lighting fixtures, toilets, channel, chaser, sump, flowerbed, street sections etc. refer relevant architectural/landscape drawings.

LEGEND

- Information Centre
- Water ATM
- Bio-toilet
- WiFi
- E-Rickshaw Lay-By + Charging Station
- Emergency Vehicle Lay-By
- Signal
- Pedestrian Crossing
- No. Stopping Zone
- Police Chowki

SPECIAL NOTE

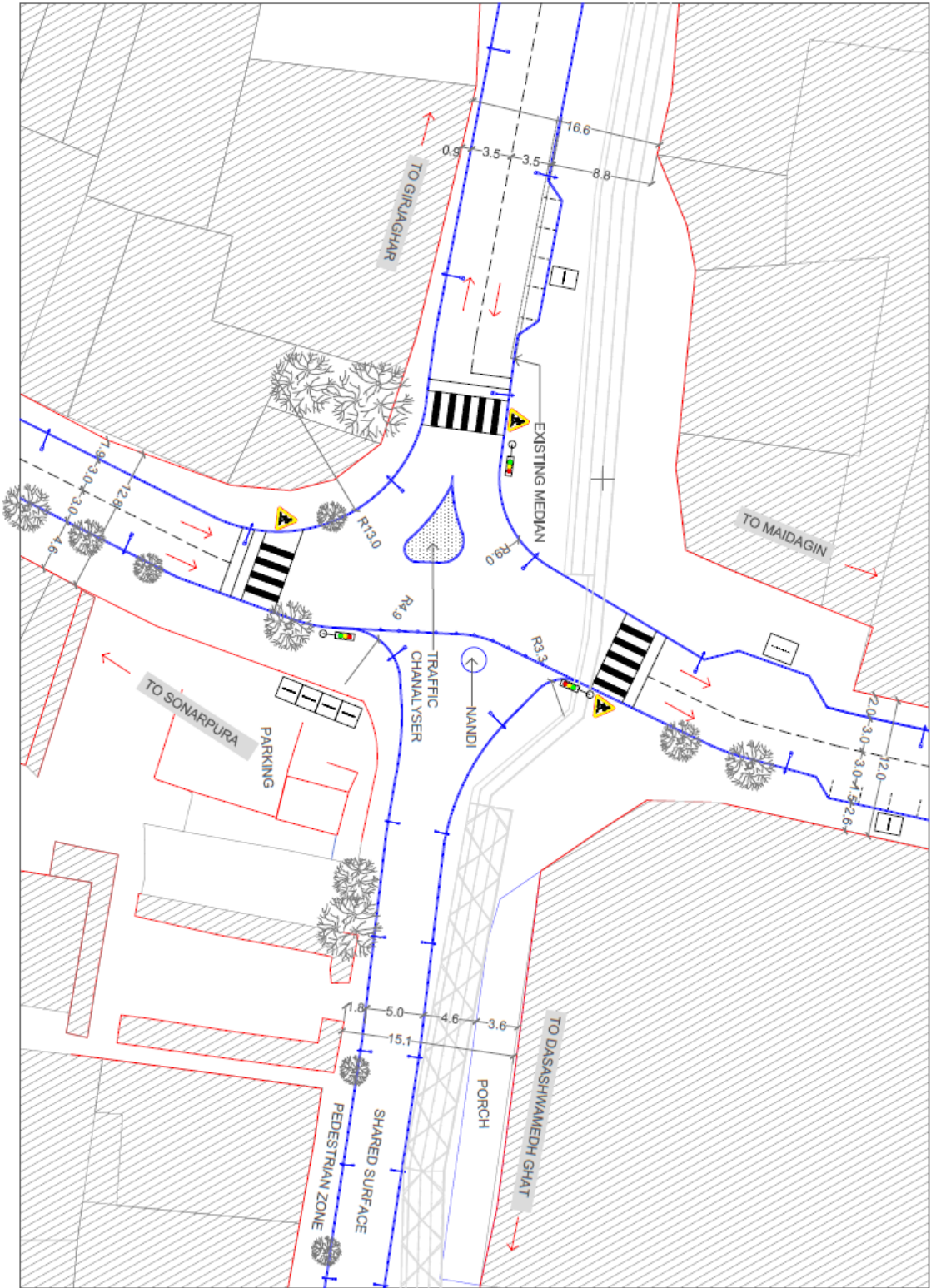
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REVISION	DATE	CHECKED BY

CLIENT: VARANASI SMART CITY LIMITED
PROJECT: ROADS AND JUNCTIONS

SCALE: 1:1000
DATE: 11.10.2017
TITLE: LAYOUT FOR GIRGAON CHOWK

Logos: REPCL, ANE CONSULTANTS



Layout for Godowlia Chowk

- GENERAL NOTES:**
1. All dimensions are in millimeters and units are in meters unless otherwise specified.
 2. All levels are in meters and are finished unless otherwise specified. All levels are indicated thus: $\pm 1.00m$
 3. Do not scale drawings. Only written dimensions shall be followed. Any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
 4. These drawings shall be correlated and read in conjunction with relevant specifications, standards, codes, and regulations for structural, mechanical, plumbing, drainage and irrigation.
 5. For details such as pathways, fencing, drainage, signs, lighting, trees, towers, street furniture, etc. refer relevant architectural/landscape drawings.

LEGEND

- Information Centre
- Water ATM
- Bio-toilet
- WiFi
- E-Rickshaw Lay-By + Charging Station
- Emergency Vehicle Lay-By
- Signal
- Pedestrian Crossing
- No Stopping Zone
- Police Chowki

SPECIAL NOTE

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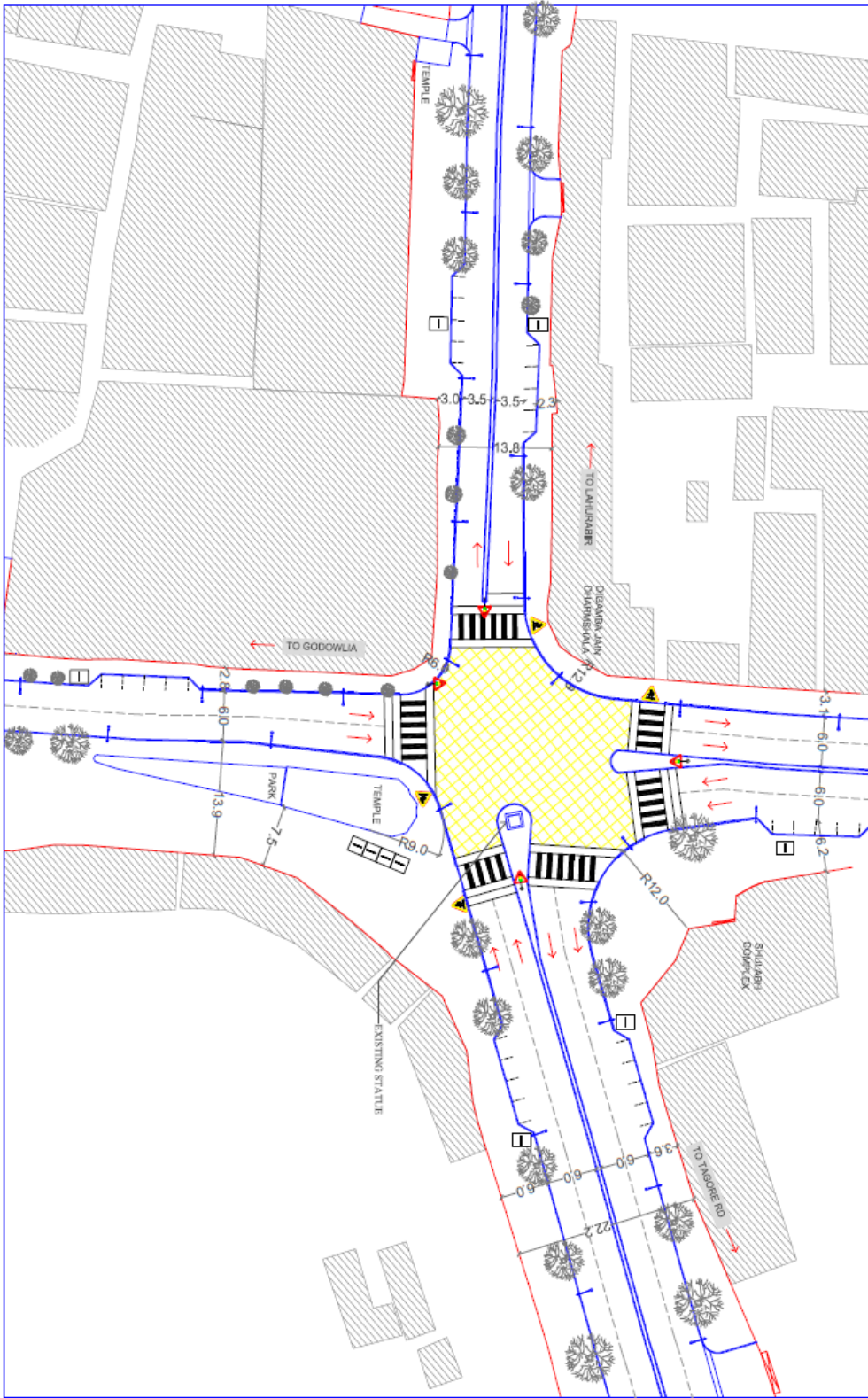
client -> VARANASI SMART CITY LIMITED

PROJECT - ROADS AND JUNCTIONS

SCALE -> HORIZONTAL: 1:1000 VERTICAL: 1:1000

DATE: 11/12/2017

TITLE - LAYOUT FOR GODOWLIA CHOWK



LAYOUT FOR MADHAGIN CHOWK



- GENERAL NOTES:**
1. All dimensions are in millimeters unless otherwise specified.
 2. All levels are in meters and are indicated as follows: $\text{LVL} + \text{m}$. All levels are indicated thus: $\text{LVL} + \text{m}$.
 3. Do not scale drawings. Only written dimensions shall be followed. Any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
 4. These drawings shall be correlated and read in conjunction with relevant services electrical plumbing drainage and irrigation.
 5. For details such as pavements, facing channels, drainage, curbs, kerbs, street sections etc. refer relevant architectural/landscape drawings.

LEGEND

- Information Centre
- Water ATM
- Bio-toilet
- WiFi
- E-Rickshaw Lay-By + Charging Station
- Emergency Vehicle Lay-By
- Signal
- Pedestrian Crossing
- No-Stopping Zone
- Police Chowki

SPECIAL NOTE

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CLIENT - VARANASI SMART CITY LIMITED

PROJECT - ROADS AND JUNCTIONS

SCALE - NORTH -

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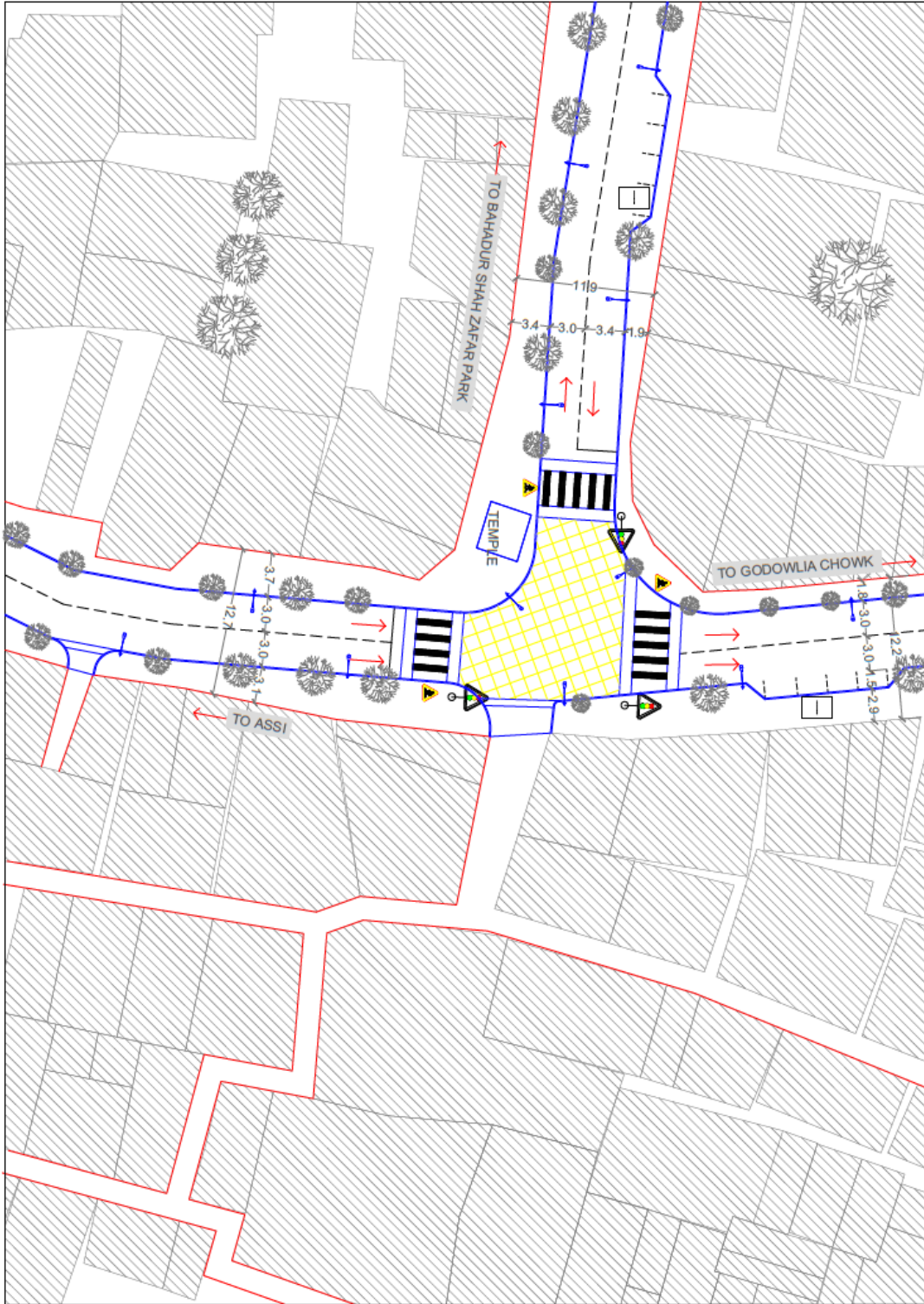
DATE -

TITLE - LAYOUT FOR MADHAGIN CHOWK

CONSULTANTS

REPT

ASSISTANT ARCHITECT



Layout for Sonarpura Tiraha

- GENERAL NOTES:**
- All dimensions are in millimeters and are dimensions unless otherwise specified.
 - All levels are in meters and are indicated by \pm LVL. mm
 - Do not scale drawings. Only your dimensions shall be followed. Any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
 - These drawings shall be correlated and read in conjunction with relevant specifications, specifications for services, electrical plumbing, drainage and irrigation.
 - For details such as pavements, facing, railing, grills, lighting fixtures, channel, chases, ramps, flowerbed, street sections etc. refer relevant architectural/landscape drawings.

LEGEND

- Information Centre
- Water ATM
- Bio-toilet
- WiFi
- E-Rickshaw Lay-By + Charging Station
- Emergency Vehicle Lay-By
- Signal
- Pedestrian Crossing
- No Stopping Zone
- Police Chowki

SPECIAL NOTE

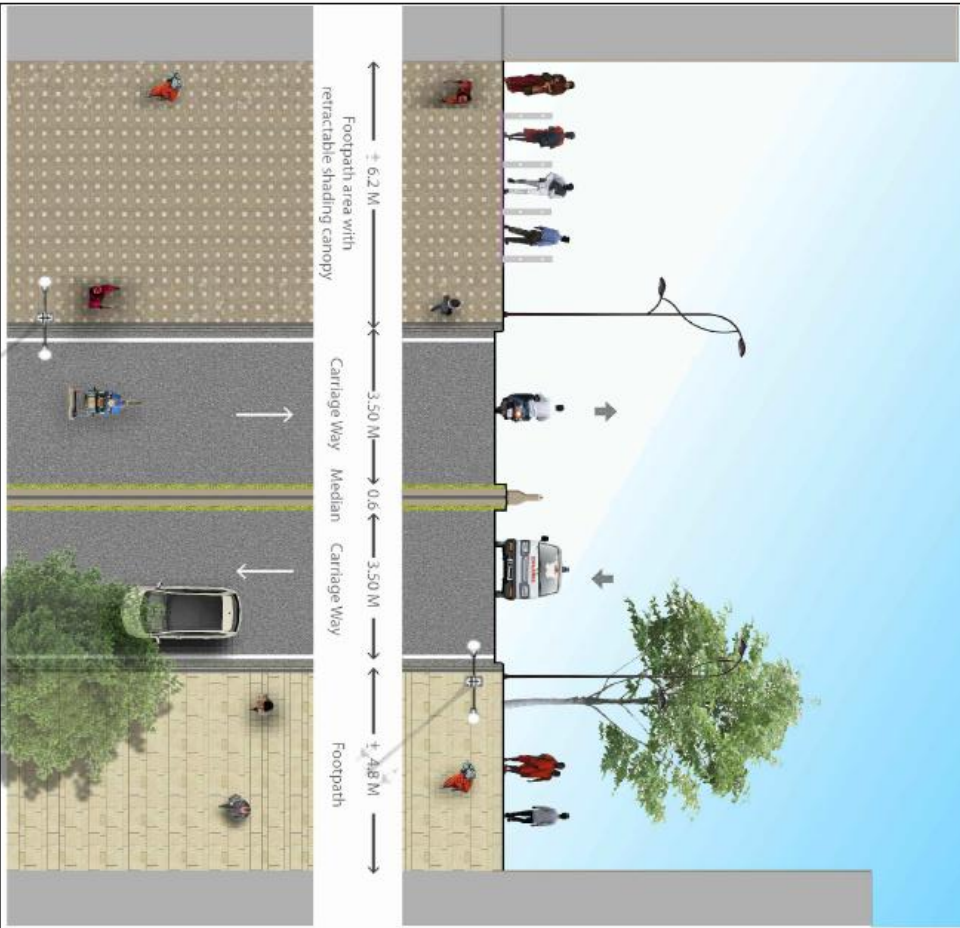
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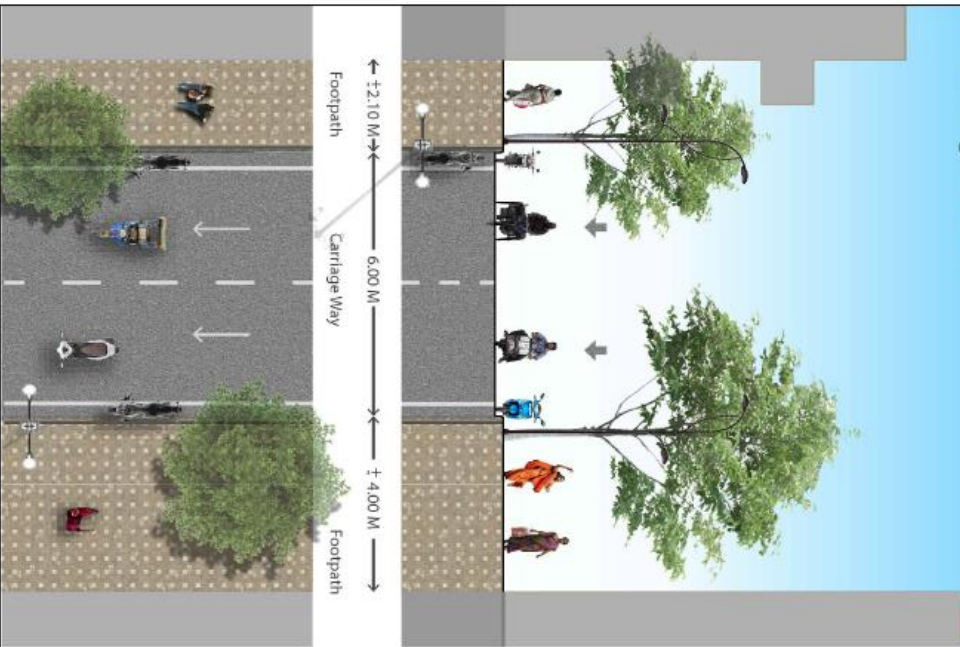
CLIENT - VARANASI SMART CITY LIMITED
 PROJECT - ROADS AND STRUCTURE

SCALE -	SHEET -	TOTAL SHEETS -
DRAWN BY -	DATE -	
CHECKED BY -		
TITLE - LAYOUT FOR SONARPURA TIRAHA		

Typical Section From Girjaghar Chowk To Godowlia Chowk



Typical Section From Godowlia Chowk To Maidagin Chowk



GENERAL NOTES:

1. All dimensions are in millimeters and are dimensions unless otherwise specified.
2. All levels are in meters and are finished unless otherwise specified. All levels are indicated thus: $+4.48\text{m}$
3. Do not scale drawings. Only written dimensions shall be followed, any dimensions shall be subject to the notice of the Architect prior to the execution.
4. These drawings shall be correlated and read in conjunction with relevant consultant's approved drawings for drainage and irrigation.
5. For details such as pathways, fencing railing, grills, lighting fixtures, toilets, channel, chaster, sunng, flowerbed, street sections see refer relevant architectural landscape drawings.

LEGEND

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CLIENT - VARANASI SMART CITY LIMITED

PROJECT - ROADS AND JUNCTIONS

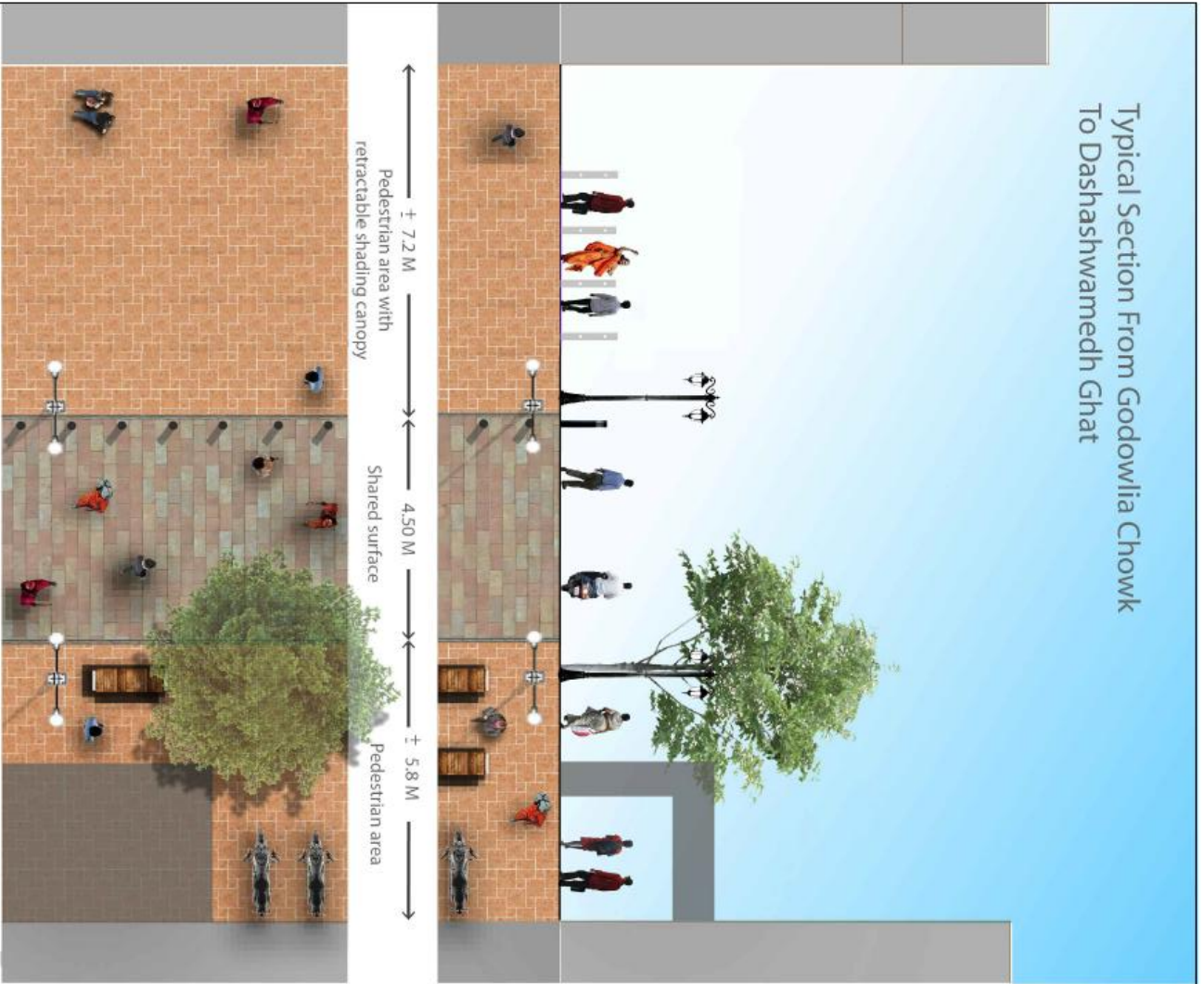
SCALE - NOT TO SCALE

DATE: 1.10.2017
 DRAWN BY: ANSHU KUMAR
 CHECKED BY: ANSHU KUMAR

ROAD SECTIONS

ANS CONSULTANTS
 ADDRESS: GUNAWAN
 MOHINI 201

Typical Section From Godowliia Chowk To Dashashwamedh Ghat



GENERAL NOTES:

1. All dimensions are in millimeters and are dimensions unless otherwise specified.
2. All levels are in meters and are finished unless otherwise specified. All levels are indicated thus: $\pm 111.00m$
3. Do not scale drawings. Only written dimensions shall be followed. Any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
4. The section shall be completed and read in conjunction with relevant consultant's approved drawings for services, electrical, plumbing, drainage and irrigation.
5. For details such as pathways, fencing railing, grills, lighting fixtures, bollards, channel, chader, sump, flowerbed, street Sections etc. refer relevant architectural/landscape drawings.

LEGEND

SPECIAL NOTE

REVISION	DATE	CHECKED BY

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CLIENT: VARANASI SMART CITY LIMITED

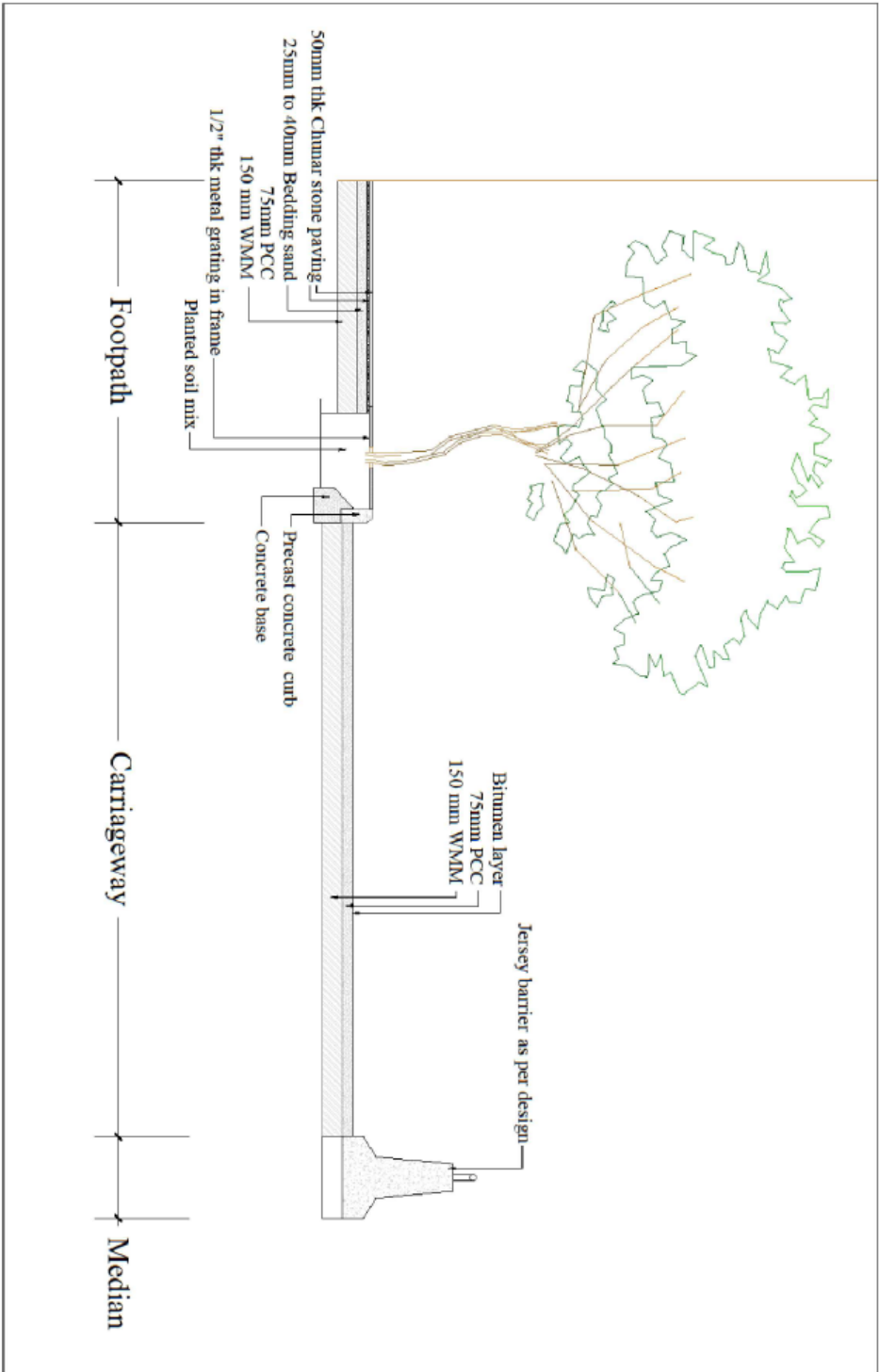
PROJECT: ROADS AND JUNCTIONS

SCALE:	ROOM:	DWG. NO.:
NOT TO SCALE		

DRAWN BY:	CHECKED BY:	DATE:
SHRI. S. YADAV	ABHIRAM KUMAR	1.10.2017

TITLE: ROAD SECTIONS

Address: GODOWLIIA CHOWK, VARANASI



- GENERAL NOTES:**
- 1. All dimensions are in millimeters and are dimensions unless otherwise specified.
 - 2. All levels are in meters, and are finished unless otherwise specified. All levels are indicated thus: $+117.11m$
 - 3. Do not scale drawings. Only written dimensions shall be followed, any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
 - 4. These drawings shall be correlated with the approved site plan and construction documents and shall be used for service, electrical plumbing drainage and irrigation.
 - 5. For details such as pathways, facade, railing, grills, lighting fixtures, outlets, channels, chaser, sump, floor level, street sections etc refer relevant architectural/landscape drawings.

LEGEND

SPECIAL NOTE

REVISION	DATE	CHECKED BY

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CLIENT - VARANASI SMART CITY LIMITED

PROJECT - ROAD AND JUNCTION

SCALE	NUMBER	DWG NO.
N/T		A.7.1/ST/01
DRAWN BY	CHECKED BY	DATE
MANALI		21.10.2017
TITLE - TYPICAL CROSS SECTIONAL DETAIL OF WIDE ROAD		



GENERAL NOTES:

1. All dimensions are in millimeters and are dimensions unless otherwise specified.
2. All levels are in meters and are finished unless otherwise specified. All levels are indicated thus: ∇ LVLmm
3. Do not scale drawings. Only written dimensions shall be followed, any discrepancies noted shall be brought to the notice of the Architect prior to the execution.
4. These drawings shall be correlated with the approved drawings for consultant's approved drawings for services, electrical, plumbing, drainage and irrigation.
5. For details such as pathways, fencing railing, grills, lighting fixtures, toilets, channel, chader, sum, flowerbed, street sections etc. refer relevant architectural/landscape drawings.

LEGEND

SPECIAL NOTE

REVISION	DATE	CHECKED BY

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CLIENT:- VARANASI SMART CITY LIMITED
PROJECT:- ROADS AND JUNCTIONS
SCALE:- NORTH:- 1:1000
 NOT TO SCALE
DRAWN BY:- _____
CHECKED BY:- _____
DATE:- 11/02/2017
TITLE:- BEFORE-AFTER, BHULAIYATU GIRIDHAR

7.2 Material Specification

- All the works shall be carried out as per specification for Road and Junctions work Detailed U.P PWD 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**

All necessary Approval from respective department such as Varanasi Development Authority shall be obtained by VSCL.

Furthermore, in this direction, NOC or an approval certificate can be sought by VSCL from the line agency involved and provided to the contractor. As some part of subject area is also located close to the Ganga river, it is to be verified that no work practices and execution methods are involved which are against the regulations mentioned on conditional NOC's and approvals by court or any other bodies and organizations.

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.

Contractor will conduct O&M for the works under scope at rates agreed at the time of bidding during the period of contract. However, regarding any future interventions by any other agencies working in the subject area, VSCL will ensure recovery of the costs of resurfacing/repairing incurred by the contractor due to additional interventions from the respective department.

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 VSCL 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;

	Technical Personnel	Number	Experience in Road Works
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 willflow 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, VSCL, Varanasi.

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.

SUMMARY OF PROJECT COST		
PROPOSED DEVELOPMENT OF JUNCTIONS, STREETS		
AT.- VARANASI		
SR. NO.	DESCRIPTION OF ITEM	AMOUNT IN Rs.
	Cost of works	
1	Development of Junctions	111308109.47
2	Development of Wide Streets	659051740.002
3	Operation & Maintenance Cost including defect liability	
	1st year	7703598.49
	2nd Year	9629498.12
	3rd Year	11555397.74
	4th Year	13481297.37
	5th year	15407196.99
	Total A	828136838.19
4	Deduction 4% for taxes as per G.O	-33125473.53
	Total B (Total A – Sl. No. 04)	795011364.66
5	Add 1% For Labour Cess on Total B	7950113.65
6	Add 2.0% for Hindrance Cost on Total B	15900227.29
	Grand Total	818861705.60

BILL OF QUANTITY FOR PROPOSED DEVELOPMENT OF JUNCTIONS						
AT.- VARANASI						
BASED ON PWD S.O.R. VARANASI CIRCLE 1-06-2015 / DSR 2016 & CURRENT MARKET RATE						
S.N.	DSR NO.	DESCRIPTION OF ITEM	QUANTITY	UNIT	RATES	AMOUNT
1	PWD 692	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).	47.25	Cum	310.00	14647.50
2	PWD 694	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)	9.54	Cum	700.00	6678.00
3	PWD 697	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)	13688.40	Sqm	35.00	479094.00
4	PWD 698	As in item (697) above but floor to be stone flagged or tiled floor	50.00	Sqm	48.00	2400.00
5	DSR 15.2	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.				
	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	1368.84	Cum	997.05	1364801.92
6	DSR 15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	20.00	Sqm	109.35	2187.00
7	DSR 15.23	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	124.00	Sqm	49.20	6100.80
8	PWD 702	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)	21.60	Qtl.	1040.00	22464.00
9	DSR 16.82	Taking out existing kerb stones of all types from footpath/ central verge, including removal of mortar etc. Disposal of unserviceable 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.	750.00	Metre	16.05	12037.50

10	PWD 252	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.	2694.24	Cum	100.00	269424.00
11	(DSR 2.25)	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.	808.27	Cum	125.75	101640.20
12	PWD 231a- xx	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.	4440.42	Cum	327.35	1453571.49
13	DSR 2.36	Extra for Leveling & Neatly dressed of disposed soil completely as directed by engineer in charge.	2053.26	Cum	37.95	77921.22
14	DSR 16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density	2053.26	Cum	10.70	21969.88
15	PWD 255	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.	2053.26	Cum	580.00	1190890.80
16	PWD 281	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 .	1566.93	Cum	4680.00	7333232.40

17	PWD 285B	R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved srong 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	229.80	Cum	8350.00	1918830.00
18	PWD 284B	As in item 17 above but 1:1.5:3 for Slab	14.40	Cum	8150.00	117360.00
19	PWD 504	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.	377.74	Qtl.	6000.00	2266452.00
20	(PWD 305+3 07- 306)	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.	351.90	Cum	4570.00	1608183.00
21	PWD 503	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 steel primer all complete.	7200.00	Kg	68.00	489600.00
22	PWD 583	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: 3 coarse sand)	242.88	Sqm	152.00	36917.76

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 charge.	490.00	Sqm	2150.00	1053500.00
24	M.R.	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 directed by engineer-in-charge.	50.00	Sqm	150.00	7500.00
25	M.R.	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.	250.00	Kg	75.00	18750.00
26	M.R.	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.	50.00	Rm	600.00	30000.00
27	(DSR 8.2.2.2)	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	1.80	Sqm	3113.30	5603.94

28	DSR 8.12.1	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 Engineerin- Charge : Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	100.00	Sqm	2887.85	288785.00
29	AR-8	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., complete. Size of Tile 150x150 mm	50.00	Sqm	1605.16	80258.00
30	A.R.-1	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.	1341.60	Sqm	3978.00	5336884.80
31	A.R.-2	Providing & fixing Besalt 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 charge.	894.40	Sqm	3571.00	3193902.40
32	A.R.-4	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 Chunar Sand Stone	8944.00	Sqm	1953.00	17467632.00
33	A.R.-3	Providing & Laying of sand Stone Flooring (Chouka) (500X500X75)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.	559.00	Sqm	3653.00	2042027.00

34	DSR 11.26. 1	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 thick	25.00	Sqm	1158.10	28952.50
35	DSR 11.27	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 complete.	10.00	Sqm	1238.20	12382.00
36	DSR 16.87. 1	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	260.00	Sqm	3339.60	868296.00
37	DSR 16.90	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.	2018.40	Sqm	1450.45	2927588.28
38	DSR 16.69	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-	113.54	Cum	5012.65	569111.22

		charge).				
39	DSR 16.63	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-in-charge.	756.90	Sqm	382.05	289173.65
40	DSR 13.48. 3	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 brand and manufacture	960.00	Sqm	84.75	81360.00
41	DSR 13.45. 1	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 applied 2.20 ltr 10 Sqm.	50.00	SQ M	150.65	7532.50
42	DSR 13.60. 1	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work	25.00	SQ M	84.45	2111.25
43	DSR 13.41. 1	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	35.00	SQ M	93.70	3279.50
44	M.R.	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.	48.00	Nos.	35000.00	1680000.00

45	M.R.	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.	20.00	Nos.	16500.00	330000.00
46	M.R.	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.	20.00	Nos.	14510.00	290200.00
47	M.R.	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.	20.00	Nos.	21500.00	430000.00
48	M.R.	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 complete in direction of engineer in charge.	10.00	Nos.	11500.00	115000.00

49	M.R.	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.	15.00	Nos.	50000.00	750000.00
50	M.R.	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.	10.00	Nos.	40000.00	400000.00
51	M.R.	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.	5.00	Nos.	160000.00	800000.00
52	M.R.	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.	5.00	Nos.	160000.00	800000.00
53	M.R.	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 block etc all complete in direction of engineer in charge.	5.00	Nos.	295000.00	1475000.00

54	M.R.	Supply ,installation testing and commissioning of ('twinkle' make-Twinkle/ Homedeck/ luster) 2700mm long decorative pole with cast aluminium elysee /victoria base and ripped galvanised steel tubes with decorative cast aluminium ring with 700mm long cast/spun aluminium body decorative fixture windsor with polycarbonate diffuser and with 40w led disc with lumen output>100lmns/w and pf>95% for maximum output and distribution of light and making foundation for installation as required by the engineer/architect in charge	28.00	Nos.	58822.00	1647016.00
55	M.R.	Supply ,installation,testing and commissining of 5000mm long polyurethane painted decorative pole with 950mm long cast aluminium base cat no :- ustun/dragon design , with 1000mm long decorative bracket cat no:-bkt-6266-990 (Make Twinkle/ Homedeck/ Luster) suitable for mounting drop down decorative aluminium dia cast post top lantern 'vintage-m' with aluminium crown like structure with polycarbonate diffuser in 90w led with lumin output>105lmns/watt fitted with 10kva surge protector disgened for maximum coverage area completely fitted with mcb and connector system at service window etc all complete in direction of engineer in charge.	10.00	Nos.	165000.00	1650000.00
56	M.R.	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)	181.00	Nos.	9000.00	1629000.00
57	M.R.	Providing of Movable barricades Plastic barrier 2000mmx600mmx1200mm all complete as per drawing & design as per direction of engineer in charge.	15.00	Rm	10500.00	157500.00
58	M.R.	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.	940.00	Rm	1850.00	1739000.00

59	M.R.	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 complete in direction of engineer in charge.	15.00	Nos.	11500.00	172500.00
60	M.R.	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 direction of engineer in charge.	10.00	Nos.	17500.00	175000.00
61	M.R.	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.	4.00	Nos.	2500000.00	10000000.00
62	M.R.	Retro- reflectorised information Signboards (Providing and fixing of retro-reflectorised cautionary, mandatory and inforamatory sign as per drawing and design including all necessary T&P etc all complete in direction of engineer in charge in line with IRC :67 2012 made of micro prismatic grade Type XI retro 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 drawing). 10 years Warranty for Retro Reflective Sheeting from the original sheeting manufacturer & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor.	22.00	Nos.	25000.00	550000.00
63	A.R.	Landscape & horticulture	1240.00	Sqm	517.97	642278.26
64	A.R.	Supplying & Laying of Coloured Bitumen including All necessary T&P etc all complete in direction of engineer in charge.	50.40	Cum	350.00	17640.00
65	M.R.	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	181.00	Nos.	1200.00	217200.00

		complete in direction of landscape Architect in charge.				
66		Drain				
66.1	PWD 252	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.	360.40	Cum	100.00	36039.60
66.2	PWD 281	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 .	67.05	Cum	4680.00	313794.00
66.3	PWD 285B	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	100.58	Cum	8350.00	839801.25
66.4	PWD 284B	As in item 65.3 above but 1:1.5:3 for Slab	131.76	Cum	8150.00	1073844.00
66.5	PWD 504	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.	221.86	Qtl.	6000.00	1331151.98

66.6	(PWD 305+3 07-306)	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.	98.37	Cum	4570.00	449534.45
66.7	PWD 583	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: 3 coarse sand)	2464.56	Sqm	152.00	374613.12
67	Bitumen Road					
67.1	A.R.	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	12857.60	Sqm	120.00	1542912.00
67.2	(DSR 16.27)	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 capacity, etc. complete	12857.60	Sqm	112.75	1449694.40
67.3	(DSR 16.79)	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-Charge.	1199.25	Cum	2132.25	2557100.81

67.4	(DSR 16.54. 1)	<p>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.</p> <p>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 in Batch Type Hot Mix Plant of 100-120 TPH capacity.</p>	523.94	Cum	7247.70	3797323.70
67.5	(DSR 16.30. 2)	<p>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 :</p> <p style="text-align: right;">On</p> <p>bituminous surface @ 0.50 Kg / sqm</p>	12857.60	sqm	27.50	353584.00
67.6	(DSR 16.57. 1)	<p>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.</p> <p>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 Type Hot Mix Plant of 100-120 TPH capacity.</p>	1285.76	Cum	7863.85	10111023.78

67.7	DSR 16.62	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.	756.90	Sqm	391.25	296137.13
67.8	PWD New Item 11 (Traffic Sign)	Supplying & Fixing of Molded Shank Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 +/- 2 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/-5degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/-2mm and height not less than 30+/- 2 mm) from the body is to be a minimum value of 500 Kg Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.	5046.00	Nos.	450.00	2270700.00

67	M.R.	Retro- reflectorised Traffic signs (Providing and fixing of retro-reflectorised cautionary, mandatory and informatory sign as per IRC :67 2012 made of micro prismatic grade Type XI retro 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 drawing) 10 years Warranty for Retro Reflective Sheeting from the original sheeting manufacturer & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor.	25.00	Nos.	8500.00	212500.00
68	M.R.	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.	720.00	Sqm	120.00	86400.00
69	M.R.	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 complete in direction of engineer in charge.	25.00	Nos.	22000.00	550000.00
70	DSR 16.92	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.	1350.00	Sqm	1395.25	1883587.50
71	MR	Providing & Laying of Rubble Strip including fixing & All necessary T&P etc zll cpmplete in direction of engineer in charge.	200.00	Rm	15000.00	3000000.00
TOTAL COST						111308109.47
			Say	Rs.	11.13	Crs.

BILL OF QUANTITY FOR PROPOSED DEVELOPMENT OF STREETS						
AT.- VARANASI						
S.N.	DSR NO.	DESCRIPTION OF ITEM	QUANTIT Y	UNIT	RATES	AMOUNT
BASED ON PWD S.O.R. VARANASI CIRCLE 1-06-2015 / DSR 2016 & CURRENT MARKET RATE						
1	PWD 692	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).	720.37	Cum	310.00	223314.08
2	PWD 694	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)	33.60	Cum	700.00	23520.00
3	PWD 697	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)	55117.92	Sqm	35.00	1929127.20
4	DSR 15.25	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	12571.60	Sqm	109.35	1374704.46
5	DSR 15.2	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.				0.00
	15.2.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	6910.29	Cum	997.05	6889902.65
6	DSR 15.23	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	160.48	Sqm	49.20	7895.62
7	PWD 702	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)	57.60	Qtl.	1040.00	59904.00
8	16.82	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.	12776.00	Metre	16.05	205054.80

9	PWD 252	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.	13522.37	Cum	100.00	1352236.80
10	(DSR 2.25)	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.	4056.70	Cum	125.75	510130.53
11	PWD 231a- xx	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.	22855.89	Cum	327.35	7481874.94
12	DSR 2.36	Extra for Leveling & Neatly dressed of disposed soil completely as directed by engineer in charge.	13342.46	Cum	37.95	506346.51
13	DSR 16.2	Extra for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density	13342.46	Cum	10.70	142764.36
14	PWD 255	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.	5453.57	Cum	580.00	3163069.44
15	PWD 281	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 .	8894.98	Cum	4680.00	41628487.68

16	PWD 285B	R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved srong 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	812.70	CUM	8350.00	6786078.40
17	PWD 284B	As in item 16 above but 1:1.5:3 for Slab	16.80	CUM	8150.00	136920.00
18	PWD 504	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.	657.74	Qtl.	6000.00	3946464.00
19	(PWD 305+3 07- 306)	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.	322.93	Cum	4570.00	1475780.96
20	PWD 503	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 steel primer all complete.	14400.00	Kg	68.00	979200.00
21	PWD 583	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: 3 coarse sand) ,	640.00	Sqm	152.00	97280.00

22	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 charge.	1184.00	Sqm	2150.00	2545600.00
23	M.R.	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 directed by engineer-in-charge.	160.00	Sqm	150.00	24000.00
24	M.R.	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.	800.00	Kg	75.00	60000.00
25	M.R.	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.	160.00	Rm	600.00	96000.00
26	(DSR 8.2.2.2)	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	28.80	Sqm	3113.30	89663.04

27	DSR 8.12.1	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 Engineerin- Charge : Flamed finish granite stone slab Jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent.	2880.00	Sqm	2887.85	8317008.00
28	AR-8	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., complete. Size of Tile 150x150 mm	75.00	Sqm	1605.16	120387.00
29	A.R.-1	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.	5956.37	Sqm	3978.00	23694431.90
30	A.R.-2	Providing & fixing Besalt 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 charge.	3970.91	Sqm	3571.00	14180126.75
31	A.R.-4	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 Chunar Sand Stone	33090.96	Sqm	1953.00	64626644.88

32	DSR 11.30. 1 based	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 sand stone & White Sand Stone	31003.68	Sqm	1016.38	31511520.28
33	A.R.-3	Providing & Laying of sand Stone Flooring (Chouka) (500X500X75)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.	11103.29	Sqm	3653.00	40560311.06
34	DSR 11.26. 1	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 thick	400.00	Sqm	1158.10	463240.00
35	DSR 11.27	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 complete.	160.00	Sqm	1238.20	198112.00
36	DSR 16.87. 1	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	416.00	Sqm	3339.60	1389273.60
37	DSR 16.90	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-	18554.88	Sqm	1450.45	26912925.70

		Charge.				
38	DSR 16.69	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).	1043.71	Cum	5012.65	5231762.96
39	DSR 16.63	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-in-charge.	6958.08	Sqm	382.05	2658334.46
40	DSR 13.48. 3	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 brand and manufacture	2880.00	Sqm	84.75	244080.00
41	DSR 13.45. 1	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 applied 2.20 ltr 10 Sqm.	80.00	SQM	150.65	12052.00

42	DSR 13.60. 1	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade : Two or more coats on new work	80.00	SQM	84.45	6756.00
43	DSR 13.41. 1	Distemping 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	160.00	SQM	93.70	14992.00
44	M.R.	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.	538.00	Nos.	35000.00	18830000.00
45	M.R.	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.	187.00	Nos.	16500.00	3085500.00
46	M.R.	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.	170.00	Nos.	14510.00	2466700.00
47	M.R.	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.	140.00	Nos.	21500.00	3010000.00

48	M.R.	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 complete in direction of engineer in charge.	60.00	Nos.	16000.00	960000.00
49	M.R.	Providing & fixing of Stainless Steel Bench (Make Ozone/ Jindal/ J.C.Decaux or Equellent 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.	80.00	Nos.	50000.00	4000000.00
50	M.R.	Providing & fixing of Stainless steel 304 grade 4 seater bench (Make Ozone/ Jindal/ J.C.Decaux or Equellent 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.	80.00	Nos.	40000.00	3200000.00
51	M.R.	Providing & fixing of Aluminum signage (Make Ozone/ Jindal/ J.C.Decaux or Equellent 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.	35.00	Nos.	160000.00	5600000.00
52	M.R.	Providing & fixing of Aluminum signage (Make Ozone/ Jindal/ J.C.Decaux or Equellent 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.	35.00	Nos.	160000.00	5600000.00

53	M.R.	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 block etc all complete in direction of engineer in charge.	25.00	Nos.	295000.00	7375000.00
54	M.R.	Supply ,installation,testing and commissining of 5000mm long polyurethane painted decorative pole with 950mm long cast aluminium base cat no :- ustin/dragon design , with 1000mm long decorative bracket cat no:-bkt-6266-990 (Make Twinkle/ Homedeck/ Lustar) suitable for mounting drop down decorative aluminium dia cast post top lantern 'vintage-m' with aluminium crown like structure with polycarbonate diffuser in 90w led with lumin output>105lmns/watt fitted with 10kva surge protector disgened for maximum coverage area completely fitted with mcb and connector system at service window etc all complete in direction of engineer in charge.	30.00	Nos.	165000.00	4950000.00
55	M.R.	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: Shuffle Shreder)	4.00	Nos.	2085060.00	8340240.00
56	M.R.	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-N0-01 (Make: Shuffle Shreder)	15.00	Nos.	1353460.00	20301900.00
57	M.R.	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-	1136.00	Nos.	9000.00	10224000.00

		BN-22)				
58	M.R.	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.	1504.00	Rm	1850.00	2782400.00
59	M.R.	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 complete in direction of engineer in charge.	631.00	Nos.	11500.00	7256500.00
60	M.R.	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 direction of engineer in charge.	550.00	Nos.	17500.00	9625000.00
61	M.R.	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 engineer in charge.	0.00	Nos.	156500.00	0.00
62	M.R.	Retro- reflectorised information Signboards (Providing and fixing of retro-reflectorised cautionary, mandatory and inforamatory sign as per drawing and design including all necessary T&P etc all complete in direction of engineer in charge in line with IRC :67 2012 made of micro prismatic grade Type XI retro 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 drawing). 10 years Warranty for Retro Reflective Sheeting from the original sheeting manufacturer & a certified copy of three years outdoor exposure	280.00	Nos.	25000.00	7000000.00

		report from an independent test lab for the product offered shall be submitted by the contractor.				
63	A.R.	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 landscape Architect in charge.	1136.00	Nos.	1200.00	1363200.00
64	A.R.	Supplying & Laying of Coloured Bitumen including All necessary T&P etc all complete in direction of engineer in charge.	153.73	Cum	350.00	53804.80
65	A.R.	Supply & Fixing of 160mm dia HDPE Pipe confirming to IS 4984-(PN 10) including All necessary T&P etc all complete in direction of engineer in charge.	2990.08	Rm	2496.00	7463239.68
66	A.R.	Supply & Fixing of 160mm dia HDPE Collar PN-10 including All necessary T&P etc all complete in direction of engineer in charge.	1067.00	Nos.	1305.60	1393075.20
67	A.R.	Supply & Fixing of 160mm HDPE Tee PN-10 including All necessary T&P etc all complete in direction of engineer in charge.	30.00	Nos.	2688.00	80640.00
68		Drain				0.00
68.1	PWD 252	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	3458.42	Cum	100.00	345841.60

		trenches.				
68.2	PWD 281	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 .	688.80	Cum	4680.00	3223584.00
68.3	PWD 285B	R.C.C. work with cement approved coarse sand and 2cm (3/4") gauge approved srome 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	516.61	Cum	8350.00	4313676.80
68.4	PWD 284B	As in item 67.3 above but 1:1.5:3 for Slab	761.09	Cum	8150.00	6202867.20
68.5	PWD 504	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.	1205.74	Qtl.	6000.00	7234464.00
68.6	(PWD 305+3 07- 306)	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.	963.95	Cum	4570.00	4405260.64
68.7	PWD 583	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	23236.99	Sqm	152.00	3532022.78

		(1 cement: 3 coarse sand)				
69		Bitumen Road				0.00
69.1	A.R.	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 repaired and sealed	87903.19	Sqm	120.00	10548383.04
69.2	(DSR 16.27)	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 capacity, etc. complete	87903.19	Sqm	112.75	9911084.90
69.3	(DSR 16.79)	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.	9518.64	Cum	2132.25	20296112.46
69.4	(DSR 16.54.1)	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. 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 in Batch Type Hot Mix Plant of 100-120 TPH	4080.90	Cum	7247.70	29577121.54

		capacity.				
69.5	(DSR 16.30. 2)	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 : On bituminous surface @ 0.50 Kg / sqm	87904.26	sqm	27.50	2417367.21
69.6	(DSR 16.57. 1)	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. 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 BatchType Hot Mix Plant of 100-120 TPH capacity.	8790.32	Cum	7863.85	69125751.64
69.7	DSR 16.62	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	6784.13	Sqm	391.25	2654290.08

		applicable specifications.				
69.8	PWD New Item 11 (Traffic Sign)	Supplying & Fixing of Molded Shank Raised Pavement Markers made of polycarbonate and ABS moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 16000 kg tested in accordance to ASTM D 4280 Type H and complying to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97 – DO III Dt 11.06. 1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 +/- 2 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 +/-5degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 +/-2mm and height not less than 30+/- 2 mm) from the body is to be a minimum value of 500 Kg Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer’s recommendation and complete as directed by the engineer.	46387.00	Nos.	450.00	20874150.00
70	M.R.	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 Work is inclusive).	12.00	Nos.	1100000.00	13200000.00

71	M.R.	Fabrication , supply and installation of 4 seater bench in SS-304 grade , with canopy of size 2 mtr x 1.5 mtre.along with an aluminium single sided advertizement panel of size 1.6 mtr x .75 mtr. Etc all complete in direction of engineer in charge.	15.00	Nos.	500000.00	7500000.00
72	M.R.	Retro- reflectorised Traffic signs (Providing and fixing of retro-reflectorised cautionary, mandatory and infromatory sign as per IRC :67 2012 made of micro prismatic grade Type XI retro 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 drawing) 10 years Warranty for Retro Reflective Sheeting fro the original sheeting manufacturer & a certified copy of three years outdoor exposure report from an independent test lab for the product offered shall be submitted by the contractor.	50.00	Nos.	8500.00	425000.00
73	JOB	Trial run cost including advirtisment as per Section - 5 of RFP all complete in direction of Urban Designer / Transport Planner in charge.	1.00	Job	1500000.00	1500000.00
74	JOB	Stake holder consultation by contractor (2.00 Times) including advertisment and media etc all complete in direction of project incharge.	1.00	Job	300000.00	300000.00
75	M.R.	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.	4.00	Nos.	500000.00	2000000.00
76	M.R.	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 engineer in charge.	500.00	Nos.	636.00	318000.00
76	M.R.	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.	3521.70	Sqm	120.00	422604.00

77	DSR 16.92	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.	1351.50	Sqm	1395.25	1885680.38
		TOTAL COST		Rs.		659051740.00

Section 8
Letter of Acceptance and Other Forms

**OFFICE OF THE CHIEF EXECUTIVE OFFICER,
VARANASI SMART CITY LIMITED, VARANASI**

NO.....

DATED.....

LETTER OF ACCEPTANCE

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

This is to notify you that on behalf of the Employer, the Chief Executive Officer, Varanasi Smart City Limited, Varanasi 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,
Chief Executive Officer
VSCL

No. & Dated as above.

**OFFICE OF THE CHIEF EXECUTIVE OFFICER,
VARANASI SMART CITY LIMITED, VARANASI**

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 offor Distt., you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

**Chief Executive Officer
VSCL**

(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 Chief Executive Officer, Varanasi Smart City Limited, Varanasi (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:
 - 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

**Chief Executive Officer
VSCL**

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

**Chief Executive Officer
VSCL**

Binding Signature of Contractor

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

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

To,
**Chief Executive Officer,
Varanasi Smart City Limited
Varanasi**

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*]¹.....[*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,

**Chief Executive Officer,
Varanasi Smart City Limited
Varanasi**

WREREAS [Name and Address of Contractor] (Hereinafter called “the Contractor”) has undertaken, in pursuance of Contract No. Datedto 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 Contractor 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

.....

