# Bidding Document for

# Procurement of Worksfor Improvement& Upgradation of Intersections in Varanasi

Issued on : 25<sup>th</sup> January,2018

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# **SECTION I**

List of Important Dates of Bids for Improvement & Upgradation of Intersections in Varanasi

1.	Name of Work:	Improvement & Upgradation of Intersections
		in Varanasi
2.	Completion Period for construction:	12 months
3.	Date of Issue of Notice Inviting Bid:	25-01-2018
4.	Period and Site for downloading of Bidding Documents:	From 27-01-2018 at 10.00 Hrs to 09-02-2018 at 15.00 hrs website –http://etender.up.nic.in
5.	Deadline for Receiving Bids:	Date: 09-02-2018 Time: 1500 hrs
6.	Time and Date for opening Technical Bid/Bids:	Date: 12-02-2018 Time: 15:00 Hrs.
7.	Date of opening of Financial Bid	To be notified later
8.	Place of opening bids	Conference hall, Ground Floor -Nagar Nigam Sigra, Varanasi
09.	Last Date of Bid Validity	180 days from the last date of submission of bid
10.	Officer Inviting Bids	Chief Executive Officer, Varanasi Smart Cities Limited (VSCL)

#### VARANASI SMART CITY LTD. (VSCL)

#### Municipal Corporation Varanasi

Ref. No. 252/CAMP-MC/2013-18

Dated - 25.01.2018

- 1. The Chief Executive Officer (CEO), Varanasi Smart Cities Limited (VSCL) invites the percentage rate bids for construction including 5 years O & M from the eligible and approved Contractors registered with State/ Central Government Organisation, class A as the case may be. The Bidders are requested to submit bids for all of the works. Bidders are advised to note the minimum qualification criteria specified in Clause 4 of the Instructions to Bidders to qualify for the award of the contract.
- 2. Time allowed for completion of each work is 12 Months, including rainy season.
- 3. The bids shall remain valid for acceptance for a period of 180 (One Hundred and Eighty) days from the last date of submission of bids. Bids once submitted cannot be withdrawn.
- 4. The Bidding document may be downloaded from the website http://etender.up.nic.in from 27-01-2018 at 10.00 Hrs to 09-02-2018 at 15.00 hrs for a non-refundable fee of Rs. 15,000.00 (Rupees fifteen thousand only, in the form of Demand Draft drawn on any Scheduled bank in favor of "Chief Executive Officer, Varanasi Smart Cities Limited" payable at Varanasi and Earnest Money Deposit in the fover of Chief Executive Officer, Varanasi Smart City Ltd. (VSCL) in the form of FDR/BG.
- 5. Bids must be uploaded on the website of http://etender.up.nic.in on or before 1500 hrs.on 09-02-2018 and the technical bids will be opened on 12-02-2018 at 15.00 Hrs., in the office of the CEO, VSCL, in the presence of the bidders who wish to attend. If the office happens to be closed on the date of receipt or opening of the bids as specified, the bids will be received and opened on the next working day, respectively, at the same time and venue, and validity of bid will be considered from the original date. The date and time of opening of the financial bid shall be notified by a notice displayed in the office of the CEO, VSCL and by individual notice to the eligible and qualified bidders. The Financial bids shall be opened in the office of the CEO, VSCL, in the presence of the bidders who wish to attend.

- 6. Bids must be accompanied with security of the amount specified for the work in the table. Bid security will have to be in any one of the forms as specified in the bidding document and shall be valid for 45 days beyond the validity of the bid.
- 7. A bidder shall not be permitted to bid for works in the Circle responsible for award and execution of contracts in which his or his spouse's near relatives (defined as first blood relations, and their spouses) is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive).
- 8. No Engineer of gazetted rank or other Gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the State / Central Government is allowed to work as a Contractor for a period of two years after his retirement from Government service, without Government permission. This contract is liable to be cancelled if either the Contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government as aforesaid before submission of the tender or engagement in the Contractor's service.
- 9. Any bidder who is having criminal record is not allowed to participate in the bidding process.
- 10. Any bidder who is registered with the state Bar Council is not allowed to participate in the bidding process.
- 11. Each bidder is required to furnish an affidavit on a non-judicial stamp paper of Rs. 100/giving all information on prescribed proforma required for evaluation of the bidding capacity of the bidder.

CEO, Varanasi Smart City Ltd.

# NOTICE INVITING TENDER (e-tender)

# VARANASI SMART CITY LTD. (VSCL) **Municipal Corporation Varanasi**

NIT :-08/VSCL/TENDER-2017-18

Date: 25-01-2018

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

S.No.	Name of the project	Nature of the project	Tender Fee non- refundable (Rs.)	Earnest Money Deposit (Rs.)	
(i)	Improvement and Up-gradation of 8 Road Intersection in Varanasi (including 5 years O&M) <b>RFP No.</b> 05 VSCL/SMART ROADS/OCT-17	Civil Work	15,000	Rs. 20.00 Lacs.	

2. Tender publish on etender web site 10:00hrs at 26 -01-2018 documents can be downloaded from the etendering website -http://etender.up.nic.infrom 27-01-2018 at 10.00 Hrs to 09-02-2018 at 15.00 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 and Earnest Money Deposit in the Favor of Chief Executive Officer, Varanasi Smart City Ltd. (VSCL) in the form of FDR/BG.

4. The deadline of bid-submission is 15.00 Hrs, on 09-02-2018

5. 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

**Chief Executive Officer** 

VSCL

## Section 2: Instructions to Bidders

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# Instruction to Bidders (ITB)

# A. General

#### 1. Scope of Bid

- 1.1. The Employer as defined in the Appendix to ITB invites bids for the improvement and upgradation of road intersection (Including 5 years of O & M) 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.
- 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/ tenderer, bid/ tender, bidding/tendering, etc.) are synonymous.

#### 2. Source of Funds

- 2.1. The Varanasi Smart Cityes Ltd. as defined in the Appendix to ITB has decided to undertake the works of construction of roads.
- 2.2. The Government of the State has decided to provide funds for the improvement and upgradation of 8 intersections.

## 3. Eligible Bidders

- 3.1. This Invitation for Bids is open to all bidders as defined in the Appendix to ITB.
- 3.2. 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.
- 3.3. 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.
- 3.4. The bidder has to produced character certificate, Solvency certificate, self-decoration affidavit (on the prescribed proforma which is attached with the bid document) etc., issued by the competent authority in original with bid document.

Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

3.5. 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 i.e. Civil work related to Road /Street/ Junction / Corridor Improvement Work on Urban Roads completed 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 (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/ Upgradation aggregating not more than 25% of the contract price: and
- 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 are allowed.
  - a) In the case of a joint venture, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution. The maximum number of members in a JV are 3 (Three) and the share of the lead member in the JV should be a minimum of 50%.

4.4.

- a) To qualify for award of the Contract, each bidder should have in the last five years:
  - **i.** Achieved in any one year a minimum financial turnover (in all cases of civil engineering construction works only) volume of construction work of at least the amount equal to the estimated cost of works (In case of JV shall be fulfilled by the Lead member). The estimated cost of work is INR 20 crores
  - ii. Satisfactorily completed, as prime Contractor, at least one similar work equal in value to one-third of the estimated cost of work for which the bid is invited, or such higher amount as may be specified in the Appendix to ITB. (In case of JV shall be jointly fulfilled by the JV Members)
  - b) Each bidder must produce:
    - 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.
  - c) Each bidder must demonstrate:
    - i. Availability for construction work, of the owned, key equipment stated in the Appendix to ITB including equipment 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;
  - d) 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.
  - e) Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful bid shall be signed by all members and submitted with the bid, together with a copy of the proposed Agreement.
- b) 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 bidders compliance with the qualifying criteria except to the extent stated in 4.4 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:

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:

- i. 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.
- ii. In the case of JV, the value of civil engineering works executed by its members **shall not** be aggregated to determine the value of a works. Instead, each contract performed by each member shall be evaluated separately satisfy the maximum value of a single contract as required in 4.6 above.
- 4.7. Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have:
- a) Made misleading or false representations in the forms, statements, affidavits and attachments submitted in proof of the qualification requirements; and/or
- b) Record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.
- c) 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.

#### **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. Drawings
  - 6. Bill of Quantities
  - 7. Form of Bid
  - 8. Form of Acceptance,
  - 9. Form of Agreement,
  - 10. Issue of Notice to Proceed with the Work, form of Unconditional Bank Guarantee.
- 8.2. One set of the bidding documents will be issued to the bidder against the payment.
- 8.3. The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, 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. Amendment of Bidding Documents

- 9.1. Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.
- **9.2.** Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing by registered post or by cable to all purchasers of the bidding documents. Prospective bidders shall acknowledge receipt of each addendum by cable to the Employer.
- **9.3.** 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.

## **B.** Preparation of Bids

#### 10. Language of Bid

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

#### 11. Documents Comprising the Bid

11.1. 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.The demand draft for the cost of the bidding documents placed in a separate cover, marked "cost of bidding document";
- II. Earnest Money in a separate cover marked 'Earnest Money';
- III. Authorized Address and contact details of the bidder having the following information: Address of communication: Telephone No.(s): Office: Mobile No.: Facsimile (Fax) No. : Electronic Mail Identification (E-mail ID):
- IV. Qualification information, supporting documents, affidavit and undertaking as specified in Clause 4 of ITB.
- V. Undertaking that the bid shall remain valid for the period specified in clause 15.1 of ITB.
- VI. Any other information/documents required to be completed and submitted by bidders, as specified in the Appendix to ITB, and
- VII. An affidavit affirming that information he has furnished in the bidding document is correct to the best of his knowledge and belief.

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

- i. Form of Bid as specified in Section 6;
- ii. Priced bill of quantities for items specified in Section 7;
- 11.2. Each part shall be separately sealed and marked in accordance with Sealing and Marking instructions in clause 19 of ITB.
- 11.3. The following documents, which are not submitted with the bid, will be deemed to be part of the bid.

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

#### SECTION PARTICULARS

#### 12. Bid Prices

- 12.1. The Contract shall be for the whole Works (Including 5 years O & M), as described in Clause 1. 1 of ITB, based on the priced Bill of Quantities submitted by the Bidder.
- 12.2. 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.
- 12.3. All duties, taxes, royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder.
- 12.4. The rates and prices quoted by the Bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment.

#### 13. Currencies of Bid

13.1. The prices shall be quoted by the bidder entirely in Indian Rupees.

#### 14. Bid Validity

- 14.1. 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. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- 14.2. 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.

#### **15. Earnest Money**

- 15.1. The Bidder shall furnish, as part of the Bid, Earnest Money, in the amount specified in the Appendix to ITB.
- 15.2. The Earnest Money shall, at the Bidder's option, be in the form of FDR/BG of a scheduled commercial bank, in favour of the name given in the Appendix to ITB. The FDR/BG 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.
- 15.3. 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.
- 15.4. 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.

- 15.5. The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.
- 15.6. 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.

#### 16. Alternative Proposals by Bidders

16.1. 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.

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

- 17.1. The Bidder shall submit one set of the bid comprising of the documents as described in Clause 12 of ITB.
- 17.2. The Bid shall be typed or written in indelible ink and shall be signed by a person or persons duly authorized to sign on behalf of the Bidder, pursuant to Clause 4.2(a) of ITB. All pages of the Bid shall be signed by the person or persons signing the Bid.
- 17.3. The Bid shall contain no overwriting, alterations or additions, except those to comply with instructions issued by the Employer, or as necessary to correct errors made by the Bidder, in which case such corrections shall be made by scoring out the cancelled portion, writing the correction and initialing and dating it by the person or persons signing the Bid.

## C. Submission of Bids

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

Note: Following conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

18.1. For participation in e-tendering module of VSCL, it is mandatory for prospective bidders to get registration on website www.etender.up.nic.in. Therefore, it is advised to all prospective bidders to get registration by making on line registration fees payment at the earliest.

#### 18.2. Tender documents can be downloaded from website <u>www.etender.up.nic.in</u>.

- 18.3. As per the directions of the Controller of Certifying Authorities, Ministry of Communication and Information Technology, Government of India, a Class III Digital Certificate shall be required to bid for all tenders solicited electronically. If the bidder does not have such a certificate, it may be obtained from authorities any of the registering or certification authorities mentioned on http://cca.gov.in/cca/?q=licensed ca.html.Kindly note that it may take at least three-five business days for the issue of a digital certificate. Bidders are advised to plan their time accordingly. NNV shall bear no responsibility for accepting bids which are delayed due to non-issuance or delay in issuance of such digital certificate.
- 18.4. If bidder is bidding first time for e-tendering, then it is obligatory on the part of bidder to fulfill all formalities such as registration, obtaining Digital Signature Certificate etc. well in advance.
- 18.5. Bidders are requested to visit our e-tendering website regularly for any clarifications and/or due date extension or corrigendum.
- 18.6. NNV shall not be responsible in any way for delay / difficulties / inaccessibility of the downloading facility from the website for any reason whatsoever.
- 18.7. For any type of clarifications bidders/contractors can visit <u>www.etender.up.nic.in</u>. If clarification is not provided it will be deemed that the provisions of RFP shall prevail.

**Part -1** be kept in one physical form (as well as both the Techanicial and financial must be submitted Online). This envelope should be properly super scribed that this envelope contains documents as per clause 12.1. This envelope should be submitted physically till date of submission and opening against bid (as per Key Schedule). Bids received within specified time (e-tender as well as physical submission) shall be opened only on the date/time specified in presence of the bidders or their authorized representatives, whosoever may be present.

- 19.8 The prospective bidders will upload scanned self-certified copies of requisite documents as required in e-tendering proces
- 19.9 Those physically submitted documents will be acceptable and considered, if, same are uploaded on the website along with the financial proposal. Cognizance of other physically submitted documents (if any) shall not be taken.
- 19.10 The physically submitted envelope of documents will be opened first. The tenders received without pre-requisite earnest money deposit (EMD), tender document fee shall be rejected. The nts fees shall not be refunded.

19.11 No Proposal will be accepted without valid EMD and Tender Document fee paid Online.

19.12 Any mismatch, if found in the documents submitted in physical form and that uploaded online, the documents submitted ONLINE shall be considered final and no justification regarding this shall be entertained.

**Part-II** (Financial Proposal): - Bidder must submit the financial bid document as per the format given in RFP/available Online and uploaded as per instructions therein. Physical submission of Financial Proposal will not be considered and the proposal will be liable for rejection. The financial proposal of technically qualified bidder shall be opened online at the notified date. The bidder can view the financial proposal/price bid opening date by logging into web-site.

19.13 VSCL reserves the right to accept or reject any or all tenders without assigning any reason what so ever.

19.14 In case, due date for Physical submission & opening of tender happens to be a holiday, the due date shall be shifted to the next working day for which no prior intimation will be given.

19.15 Any change/modifications/alteration in the RFP by the Bidder shall not be allowed and such tender shall be liable for rejection.

19.16 For amendment, if any, please visit <u>www.etender.up.nic.in</u> web site regularly. In case of any bid amendment and clarification, the responsibility lies with the bidders to note the same from web site of VSCL. VSCL shall have no responsibility for any delay/omission on part of the bidder.

#### 19. Deadline for Submission of Bids

- 20.1. Complete Bids (including Technical and Financial) must be received by the Employer at the address specified in the Appendix to ITB not later than the date and time indicated 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 received up to the specified time on the next working day.
- 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.

#### 20. Late Bids

21.1. Bid received by the Employer after the deadline prescribed in Clause 20 of ITB .

#### **D.** Bid Opening and Evaluation

#### 21. Bid Opening

- 22.1. The Employer will open the bids received (except those received late) 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 and location on the next working day.
- 22.2. The envelope containing the technical bid shall be opened. The inner envelope marked "cost of bidding document downloaded from the Internet" will be opened first and if the cost of the bidding documents is not there, or incomplete, the remaining bid documents will not be opened, and bid will be rejected.
- 22.3. In all other cases, the amount of Earnest Money, forms and validity shall be announced. Thereafter, the bidders' names and such other details as the Employer may consider appropriate, will be announced by the Employer at the opening.
- 22.4. The Employer will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Clause 22.3 of ITB.
- 22.5. 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 a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.
- 22.6. The Employer shall inform, by telegram or facsimile, 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 and location on the next working day through they or their representative, may attend the meeting of opening of financial bids.
- 22.7. 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 remaining bids will be returned unopened to the bidders. 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.
- 22.8. The Employer shall prepare the minutes of the opening of the Financial Bids.

#### 22. 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.

#### 23. 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 maynot 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 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 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.

## E. 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:
  - a) 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 (i) eligible in accordance with the provisions of Clause 3 of ITB, and (ii) qualified in accordance with the provisions of Clause 4 of ITB; and
  - b) To be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.

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

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

#### 31. Notification of Award and Signing of Agreement

- 31.1. The bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the Part I General Conditions of Contract called the "Letter of Acceptance") will state the sum that the Employer will pay to the Contractor in consideration of the execution, completion by the Contractor as prescribed by the Contract (hereinafter and in the Contract 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, infavour of CEO, VSCL 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 constitutes sufficient grounds for cancellation of the award and forfeiture of the Earnest Money. He will also be debarred from participating future bids under U.P. P.W.D. 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

34.1. 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.

Instructions to							
Bidders Clause							
Reference							
(1.1)	The Employer is Varanasi Smart Cities Limited (VSCL)						
	Represented by Chief Executive Officer (CEO)	Represented by Chief Executive Officer (CEO)					
(1.1)	The work is Improvement and Up-gradation of 8	Road Intersection in					
	Varanasi (including 5 years O&M)						
(2.1)	The State is Uttar Pradesh						
(3.1)	The eligible bidders are: Contractors registered with -	-UP PWD in class 'A'					
	or 'B' as the case may be.						
(4.2) (g)	The percentage is <b>Ten</b> One Third of the estimated cost of works						
(4.4 a) (b)	Other certificates required with the bid are: As per ITE	)					
(4.4 b) (a) (iii) (4.4 b) (b) (i)	The key equipment's for junction improvement we						
(4.4 0) (0) (1)	laboratory are:	Jiks and held testing					
	FOR JUNCTION IMPROVEMENT WORKS						
	S.No.EquipmentTypeandCharacteristics MinimumNumber required						
	1 Thermoplasticpaintlayingmachinealongwithall operational appurtenances	2					
	2 PowerDrill(Asperrequirement) 2						
	3 TractorTrolley	2					
	4 BatchtypeHotMixPlantwithelectroniccontrols	1					
	5 PaverFinisherwithElectronicSensor	1					
	6 Tippers	4					
	7 Vibratory/Smooth/PTRoller	2					
	8 WetMixPlanthavingsuitablecapacity	1					
	9 BitumenSprayer	2					
	<b>FOR FIELD TESTING LABORATORY</b> All equipment should be provided at site lab and central lab as per SP-2 UPP.W.D.	0- 2002 I.MORTH /					

# Appendix to Invitation To Bidders (ITB)

(4.4 b) (b) (ii)	(b) (ii) The Number of Technical personnel, Qualifications and Experience w as follows:					
	S.No.	Position	Total Experience (years)	In Similar Works Experience		
			(years)	(years)		
	1	Project Manager (B.E./B. Tech in Civil Engg. or equivalent)	12	6		
	2	Architect/Urban planner	10	5		
	3	Road Safety Expert (certificate of relevant work experience to be produced)	8	4		
	4	Site Engineer (Diploma in Civil Engineering)	8	4		
	5	Surveyor (ITI/Diploma)	8	4		
(4.4 b) (b) (iii)	giving theproof of payment of their salaries/ Wages by Cheque/ Demand Draft. 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)	followin	lder must produce an affidavit stating departmental officers are not in h .E.'s, E.E.'s, S.E.'s, and other staff of	is employment:			
(4.4 b) (c) (ii)	<ul> <li>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:</li> <li>Municipal Corporations, U.P.P.W.D., R.E.S. and. U.P. Irrigation. (Assistant Engineer, Executive Engineer, Superintending Engineer, Chief Engineer, Director cum Chief Engineer, Engineer-in- Chief)</li> </ul>					
	In case	there is no such person in his en		uffidavit should		
	-	state this fact.				
(4.6)	M = 2.5					
(7.1)	The con	tact person is:				

	Designation: CEO, Varanasi Smart City Limited
	Add: Nagar Nigam Varanasi
	Near Sigra Stadium, Sigra, Varanasi
	Ph. No.: 0542-2221711
(11.1)	Language of the bid is: English
(12.1) Part I (v)	The other documents required are: NONE
(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 INR 20 lakh
(16.2)	Fixed Deposit Receipt must be drawn in favour of:
	"Chief Executive Officer, Varanasi Smart Cities Limited" payable at Varanasi
(16.2)	Other acceptable forms of Bid Security pledged in favour of :
	"Chief Executive Officer, Varanasi Smart Cities Limited" payable at Varanasi
(16.3)	Exemption from Earnest Money is granted to: NONE
(20.1)	The Employer's address for the purpose of Bid submission is:
	Office of CEO, Varanasi Smart City Limited, VNN
	Near Sigra Stadium, Sigra
	Varanasi – 221010
	Uttar Pradesh, India
(20.1)	Deadlines for submission of bids shall be:
	Date : 09-02-2018
	Time         :         15:00 hrs (IST)
(22.1) & (22.6)	The date, time and place for opening of the Technical Bids are:

	The bid opening shall take place at:					
	Conference Hall, Ground Floor, Varanasi Nagar Nigam					
	Street Address : Near Sigra Stadium, Sigra					
	City : Varanasi					
	State : Uttar Pradesh					
	ZIP Code : 221010					
	Country : INDIA					
	Date : 12-02-2018					
	Time : 15:00Hrs.					
	In the event of the specified date of Bid opening being declared a holiday for the Client, the Bids will be opened at the same appointed time and location on the next working day.					
(32.1)	The amount and validity period of the performance guarantee is:					
	Amount: 5% of the contract price					
	Validity Period: - As per ITB					
	(i) Performance security shall be valid as per clause 32.					
	<ul> <li>(ii) Additional Performance Security for unbalanced Bid shall be valid for 45 days plus intended completion period.</li> </ul>					

**Signature of Employer / Authorized Signatory** Date:

Section 3 Qualification Information

(Following information 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 post –qualification as provided for in Clause 4of the Instructions to Bidders. This information will not be incorporated in the Contract. Attach additional pages as necessary.

## 1. Individual Bidder/ In case of Joint Venture (JV) for each member organization

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

1.3 1	Work performed as prime Contractor (in the same name and style) on construction
	works of a similar nature and volume over the last five years. Attach certificate
	from the Engineer-in-charge

Project	Name of	Description	Value of	Contract	Date of	Stipulated	Actual Date	Remarks
Name	Employer	of Work	Contract	No.	Issue	Date of	of	explaining
					of	Completion	Completion	Reasons for
					Work			delay, if any
					Order			

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	s and on-going	construction works:

Description	Place	&	Contract	Name &	Value of	Stipulated	Value of	Anticipated
of	State		No. &	Address of	Contract	period of	works	date of
Work			Date	Employer	(Rs. In	completion	remaining	completion
					lakhs)		to be	
							completed	
							(Rs. In	
							lakh)	
(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) <u>Works for which bids already submitted:</u>

Description	Place	&	Name	&	Estimat	ed	Stipulated	Date when	Remarks, if
of Work	State		Address	of	value	of	period of	decision is	any
			Employer		works	(Rs.	completion	expected	
					In lakhs	s)			
(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	Condition (new, good,	Owned, leased
	age (Years), and	poor) and number	(from whom?), or
	capacity	available	to be purchased

1.5 Qualification of technical personal 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		e
			Road	Building	Other
			Works	Works	

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	Experience in similar
		(name and address)	works

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.

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

- 1.8 Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit, etc. List below and attach copies of support documents. (Sample format attached).
- 1.9 Name, address, and telephone, telex, and facsimile numbers of banks that may provide references if contacted by the Employer.
- 1.10 Information on current litigation in which the bidder is involved

Name of the Other	Cause of Dispute Litigation where		Amount Involved
Party (s)		(Court/Arbitration)	

1.11 Proposed Programme (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 letter head of the bank.

# 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.
  - i. Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
  - ii. Compensation Events are those defined in Clause 40 hereunder.
  - iii. The Completion Date is the date of completion of the Works as certified by the Engineer, in accordance with Clause 48.1.
  - iv. 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.
  - v. The Contract Data defines the documents and other information, which comprise the Contract.
  - vi. The Contractor is a person or corporate body or a Joint Venturewho's Bid to carry out the Works, including routine maintenance, has been accepted by the Employer.
- vii. The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.
- viii. The Contract Price is the price stated in the Letter of Acceptance and thereafter as adjusted in accordance with the provisions of the Contract.
- ix. Days are calendar days; months are calendar months.
- x. A Defect is any part of the Works not completed in accordance with the Contract.
- xi. 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.
- xii. The Defects Liability Period is one year calculated from the Completion Date.
- xiii. Drawings include calculations and other information provided or approved by the Engineer for the execution of the Contract.
- xiv. 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.

- xv. 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.
- xvi. Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- xvii. The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.
- xviii. 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.
- xix. Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- xx. The Site is the area defined as such in the Contract Data.
- xxi. Site Investigation Reports are those that were included in the bidding documents and are reports about the surface and subsurface conditions at the Site.
- xxii. Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.
- xxiii. 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.
- xxiv. 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.
- xxv. Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- xxvi. A Variation is an instruction given by the Engineer, which varies the Works.
- xxvii. 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.
- xxviii. Plant is any integral part of the Works that shall have a mechanical, electrical, electronic, chemical, or biological function.

#### 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. Drawings,
  - 9. Bill of Quantities, and
  - 10. Any other document listed in the Contract Data.

#### 3. Language and Law

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

#### 4. Engineer's Decisions

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

#### 5. Delegation

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

#### 6. Communications

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

#### 7. Subcontracting

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

- 7.2. Beyond what has been stated in clauses 7.1, if the contractor proposes sub-contracting any part of the work during execution of the works, because of some unforeseen circumstances to enable him to complete the work as per terms of the contract, the Employer will consider the following before according approval:
  - a) The Contractor shall not sub-contract the whole of the works.
  - b) The Contractor shall not sub-contract any part of the work without prior consent of the Employer. Any such consent shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and neglects of any his sub-contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents and workmen.
- 7.3. The Engineer should satisfy himself before recommending to the Employer whether a. The circumstances warrant such sub-contracting: and b. The sub-contractor so proposed for the work possess the experience, qualification and equipment necessary for the job proposed to be entrusted to him in proportion o the Quantum of works to be sub-contracted.

#### 8. Other Contractors

- 8.1. The contractor shall co-operate and share the site with other contractors. Public authorities utilities, and the employer between the dates given in the schedule of other contractors, as refereed 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.
- 8.2. 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.

#### 9. Personnel

- 9.1. 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.
- 9.2. 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.
- 9.3. 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.

#### 10. Employer's and Contractor's Risks

10.1. 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.

## 11. Employer's Risks

11.1. 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.

#### 12. Contractor's Risks

12.1. 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.

## 13. Insurance

- 13.1. 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.
- 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.
- 13.4. Alterations to the terms of insurance shall not be made without the approval of the Engineer.
- 13.5. Both parties shall comply with any conditions of the insurance policies.

#### 14. 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 contactor shall deploy the equipment and machinery as given in Contract Data.
- 16.3. Contractor will conduct O&M for the works under scope at rates agreed at the time of bidding . However, regarding any future interventions by any other agencies working in the subject area, VSCL will assist the contractor to recover the resurfacing/repairing costs incurred due to additional interventions(as referred in query) from the respective department.

#### 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 Program 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 fully responsible for the safety of all activities on the Site.

## 20. Discoveries

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

## 21. Possession of the Site

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

## 22. Access to the Site

- 22.1. The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:
  - a) The Engineer
  - b) The Employer
  - c) The Ministry of Housing and Urban Affairs, Government of India.
  - d) National Rural Roads Development Agency, New Delhi.

## 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. 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. 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.
- 25.2. 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.

- 25.3. The Arbitration shall be conducted in accordance with the following procedure,:
  - a) In case of a decision of the Competent Authority in a dispute or difference arising between the Employer and a Contractor relating to any matter arising out of or connected with this Agreement, the matter will be referred to an Arbitral Tribunal. The Arbitral Tribunal shall consist of three Arbitrators, one each to be appointed by the Employer and the contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties and shall act as presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the presiding Arbitrator shall be appointed by the Chairman of the Executive Committee of the Indian Roads Congress.
  - b) If one of the parties fails to appoint its arbitrator in pursuance of sub-clause (a) above within 30 days after receipt of the notice of the appointment of its arbitrator by the other party, then the 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.
- d) Arbitration proceedings shall be held at Varanasi (U.P.), India, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.
- 25.4. 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/ equipment 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 Superintending Engineer 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. The Engineer shall record the business of management meetings and provide copies of the record to those attending the meeting. The responsibility of the parties for actions to be taken shall be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all those who attended the meeting.
- C. Quality Control

#### **30. Identifying Defects**

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

#### 31. Tests

- 31.1. For Carrying out mandatory tests as prescribed in the specification. The Contractor shall establish field laboratory at the location decided by Engineer. The field laboratory will have minimum equipment as specified in the Contract Data. The contractor shall be solely responsible for: a. Carrying out the mandatory tests prescribed in the Specifications, and b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.
- 31.2. If the Engineer instructs the Contractor to carry out a test not specified in the 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 one year

- 32.1. 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.
- 32.2. 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.
- 32.3. The request for inspection (RFI) system will be followed for execution of work.

#### **33. Uncorrected Defects**

- 33.1. If the Contractor has not corrected a Defect pertaining to the Defect Liability Period under clause 32.1 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 roads. The payment to the Contractor is performance based for routine maintenance of roads.

## 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 contactor 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:
- a) 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

The rates quoted by the Contractor shall be deemed to be inclusive of the sales and other levies, duties, royalties, cess, toll, taxes of Central and State Governments, local bodies and authorities that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.

# 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 has passed and the Engineer has certified that all defects notified by the Engineer to the contractor before the end of his period have been corrected.

- 43.3. The additional performance security for unbalanced bids as detailed in Clause 51 of Conditions of Contract is repaid to the contractor when the construction work is complete.
- 43.4. The performance security equal to the five percent of the contract price in Clause 51 of Conditions of contract is repaid to the contractor when the period of one year fixed or defect liability period 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 favour of the Employer for Defect Liability Period.

## 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 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 has 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

Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

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 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.
- 47.2. Contractor will conduct O&M for the works under scope at rates agreed at the time of bidding. However, regarding any future interventions by any other agencies working in the subject area, VSCL will assist the contractor to recover the resurfacing/repairing costs incurred due to additional interventions (as referred in query) from the respective department.
- 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 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. I above, the engineer shall proceed to finalise 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

#### Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

- 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 judgement 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 anything 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 un-recovered 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 labour, 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 labour 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 labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour 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.

57.2. 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, expect 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 organised 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-decoration affidavit (on the prescribed proforma, which is attached with the bid document) etc., issued by the competent authority in original with bid document.
- 60.3. 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:

# CEO, Varanasi Smart City Limited, Varanasi[Cl.1.1]

Near Sigra Stadium, Sigra-Varanasi Uttar Pradesh - 2210101 INDIA

Telephone: 0542-2221711Facsimile number: 0542-2221702Electronic mail: nagarnigamvns@gmail.com; info@nnvns.org

- 2. The Intended Completion Date for the whole of the Works is three (3) months [Cl.1.1 (iii)] after start of work.
- 3. The Site is located: with in Distt. Varanasi per list of Junctions attached. [Cl.1.1]
- 4. The Start Date shall be Issue of notice to proceed with the work
- 5. The Works consist of Improvement and Upgradation of Junctions including 5 years of O&M in Varanasi.
- 6. The following documents also form part of the Contract: As detailed in General Condition Clause 2 (2.3).
- (a). Typical Drawing of Junctions
- (b). Typical drawing of Cross Sections
- (c). Bill of Quantities

The contractor shall submit the working/ shop drawings along with work program as applicable.

- 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]

No.	Position	Total Work Similar Experience (years)	In Similar Works Experience (years)
1	Project Manager (B.E./B. Tech in Civil Engg. or equivalent)	12	6
2	Architect/Urban planner	10	5
3	Road Safety Expert (certificate of relevant work experience to be produced)	8	4
4	Site Engineer (Diploma in Civil Engineering)	8	4
5	Surveyor (ITI/Diploma)	8	4

# (B). For routine Maintenance:

Technical Personnel		Nur	nber	Experience in Road/ Junction
		Contract works	Contract works	Works
		uptoRs. 2 crore	above Rs. 2	
			crore	
Degree Holder in Civil		1	1	At least 2 years
Engineering				
Diploma Holder in	Civil	1	2	At least 2 years
Engineering				

# 10. Amount and deductible for insurance are:

S.No.		Minimum Cover for	Maximum Deductibles for
		Insurance	Insurance
1.	Work & Plant & Materials	Equal to Contract Amount	0.4% of Contract Amount
2.	Loss or Damage to Equipment	10% of Contract Amount	0.4% of Contract Amount
3.	Other Property (unlimited	5% of Contract Amount	0.4% of Contract Amount
	occurrences)		
Personal	Injury or death insurance:		
4.	a) For other	$\Box$ 25 lacs	-
	people (unlimited		
	occurrences)		
5.	b) For contractor's	In accordance with the sta	atutory requirements
	employees	applicable to India	

11. Site Data are:

- Map of Location of Intersections.
- Drawing of each intersection with the proposed improvements.

12. The key equipment/machinery for construction of works shall be:

S.No.	Kauinmont L'ynognd ('hgractaristics	MinimumNumber required
	Thermoplasticpaintlayingmachinealongwithall operationalappurtenances	2
2	PowerDrill(Asperrequirement)	2
3	TractorTrolley	2
4	BatchtypeHotMixPlantwithelectroniccontrols	1
5	PaverFinisherwithElectronicSensor	1
6	Tippers	4
7	Vibratory/Smooth/PTRoller	2
8	WetMixPlanthavingsuitablecapacity	1
9	BitumenSprayer	2

# \* The equipment should not be more than five years old

13. Competent authorities are:	[Cl. 24.1]
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Chief Executive Officer, Varanasi Smart City Limited, Nagar Nigam Varanasi

14. (a) The Contractor shall submit for approval a Program for the Works within Fifteen days (15) from the date of the Letter of Acceptance. [Cl.26.1]

(b) The period between Program updates is Thirty (30) days. [Cl. 26.3]

- (c) The amount to be withheld for late submission of an updated Program is  $\Box$  5,000/ per day [Cl. 26.3]
- 15. No increase in rates of any items specified in Bill Of Quantities is allowed due to variation in quantities [Cl 36.1]
- 16. The authorized person to make payments is Chief Engineer, Nagar Nigam Varanasi, Sigra, Varanasi [Cl.39.2]

#### 17. (a) Milestones to be achieved during the contract period

- 1/8th of the value of entire contract work up to 1/4th of the period allowed for completion of construction
- 3/8th of the value of entire contract work up to  $\frac{1}{2}$  of the period allowed for completion of construction
- 3/4th of the value of entire contract work up to 3/4th of theperiod allowed for completion of construction

#### 18. (b)Amount of liquidated damages for delay in completion works

For whole of work 1 percent of the Initial Contract Price, rounded off to the nearest thousand, per week.

#### (c) Maximum limit of liquidated damages for delay in completion work.

10 percent of the Initial delay in completion of work. Contract Price roundedoff to the nearest thousand. [Cl.44.1]

- 19. 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]
- 20. (a) The Schedule of Operating and Maintenance Manuals N.A. [Cl.51.1]
- (b) The date by which "as-built" drawings (in scale as directed) in 2 sets are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be (Including L-Section and Cross Section of the road) . [Cl.51.1]
- 21. The amount to be withheld for failing to supply "as-built" drawings by the date required is Rs. One Lac. [C1.51.2]
- 22. The percentage to apply to the value of the work not completed representing the Employer's additional cost for 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.

Workmen Compensation Act 1923: - The Act provides for compensation in case of injury by accidentarising out of and during the course of employment.

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.

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.

Maternity Benefit Act 1951: - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

Contract Labour (Regulation & Abolition) Act 1970: - The Act provides for certain welfare measures to be provided by the Contractor to contract labour 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 labour.

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 andwhat 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.

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.

#### Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

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.

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.

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.

Child Labour (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 labour is prohibited in building and construction industry.

Child Labour (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 labour is prohibited in building and construction industry.

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, Travelling expenses from home up to the establishment and back etc.

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.

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.

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.

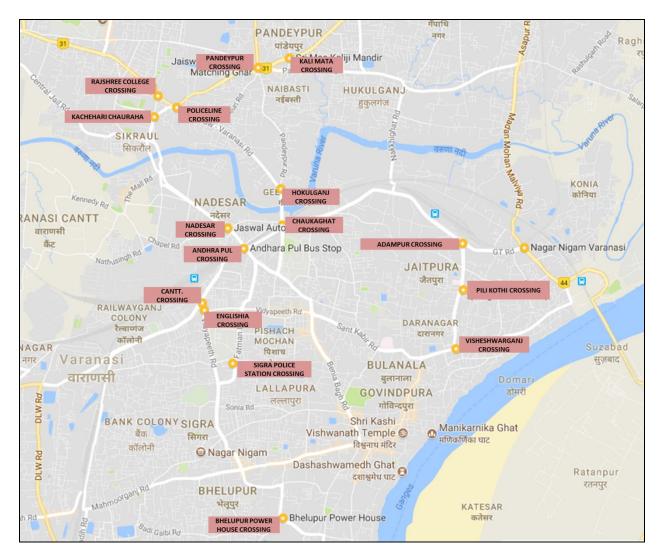
# Section 4 Conditions of Contract Part – II Special Conditions of Contract

I. Contractor shall procure Bitumen and Modified 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 or Modified Bitumen along with the bill.

# Section 5

# Drawings

# Location Map:-



# List of Drawings:-

S.No.	Junction Name
1.	Chaukaghat and Andhrapul
2.	Englishiyaline and Cantt Crossing
3.	Nadesar Chowk
4.	Police line Chowk
5.	Pandeypur Crossing
6.	Kachehri Chowk

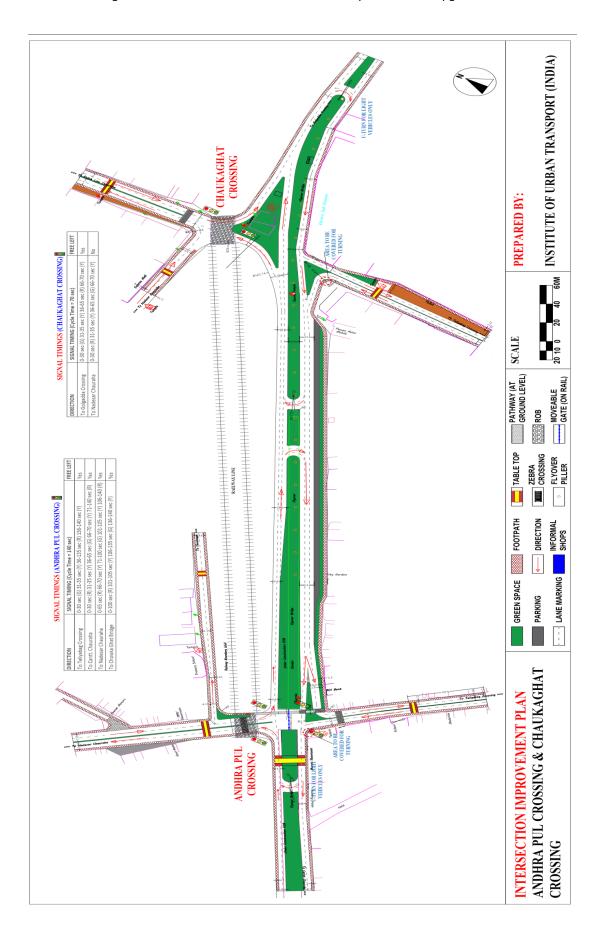
#### Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

S.No.	Drawing Name
1.	Design of median curb
2.	Lane marking
3.	Table top Crossing

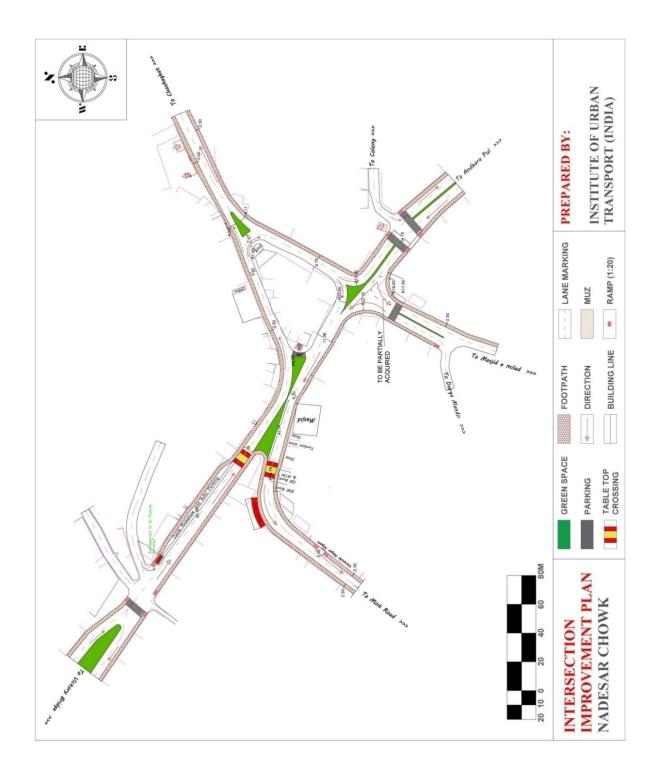
Drawings to be followed for actual execution of work should bear the stamp "Good for construction".

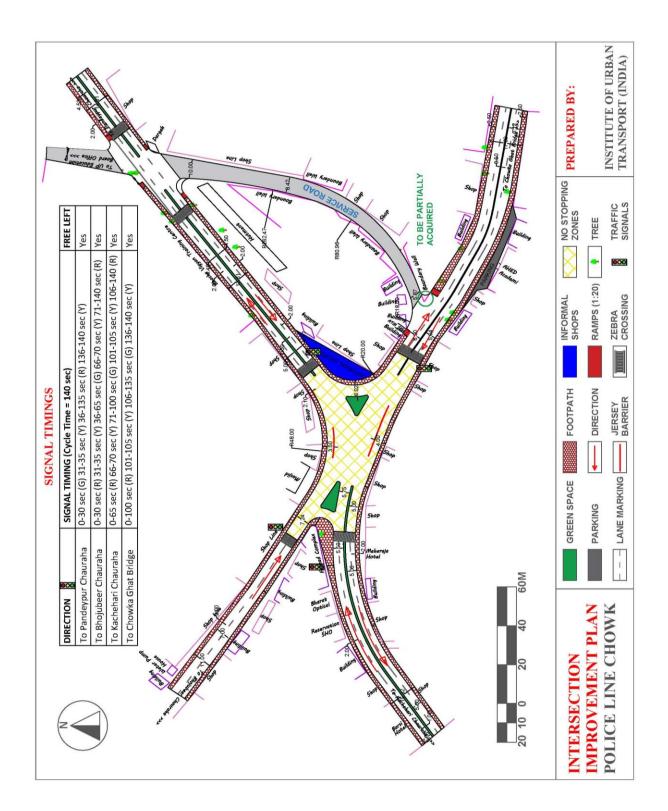
(b) Any revision of working drawings should be indicated by pre-fixing R1, R2.... etc. after original reference number. Reasons for each revision should be clearly noted in the drawing. Complete set of drawings should be issued along with other tender documents so as to form part of the agreement.

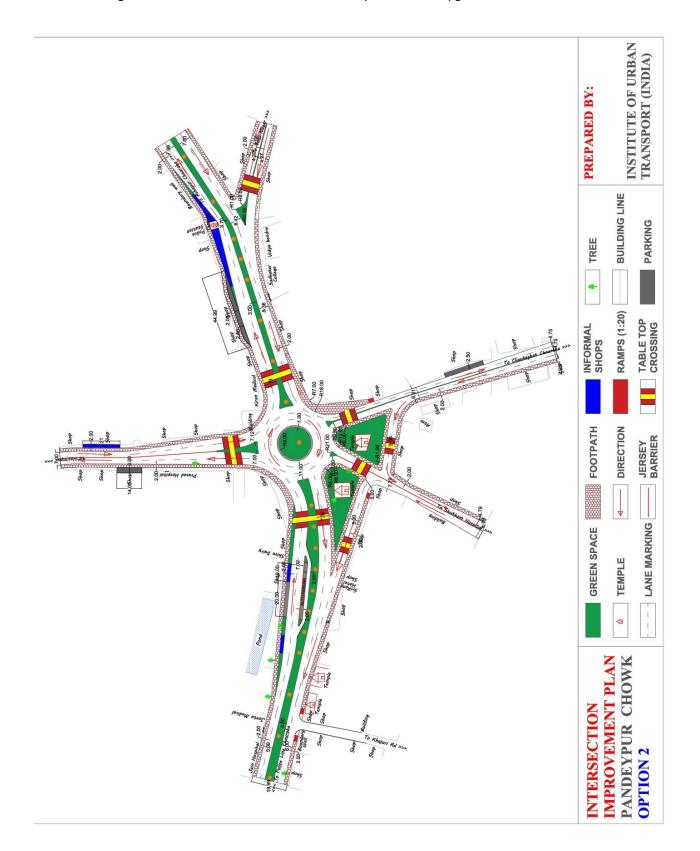
( $\underline{c}$ ) Drawings are not available with the bidding documents downloaded from the website and may be obtained from the office of the concerned PIU as indicated in the NIFT





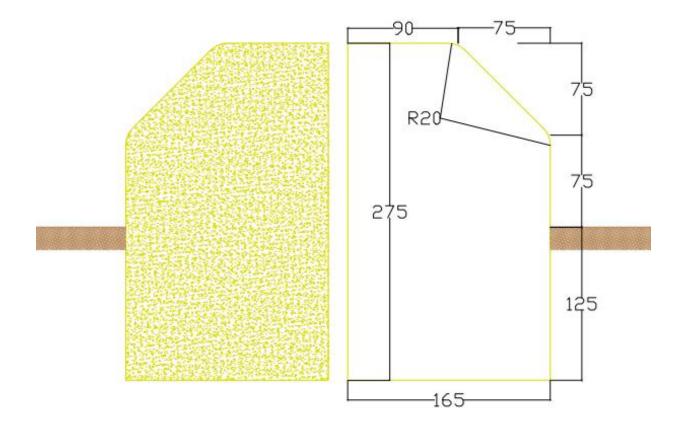




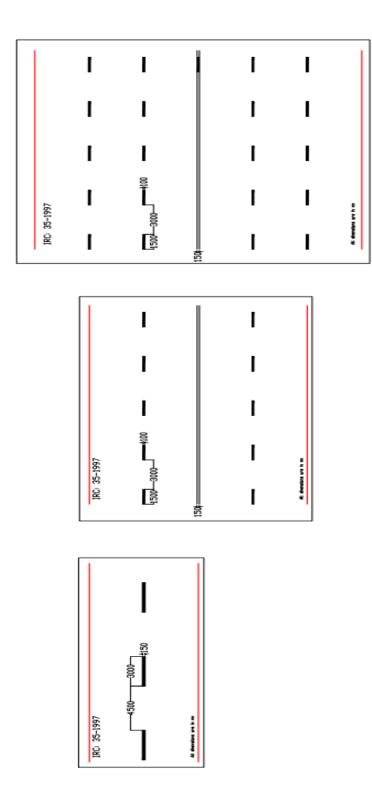




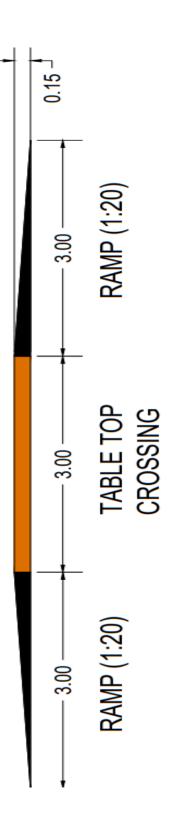
# **Design of Median Curb**



# Lane Markings



# **Table Top Crossing**



# Section 6

## Form of Bid

\_\_\_\_\_[Date]

To CEO, Varanasi Smart City Limited (VSCL), Varanasi

Address:Nagar Nigam Varanasi, Near Sigra Stadium, Sigra, Varanasi

**Description of the Works:** Improvement and Upgradation of 8 Intersections of Varanasi including 5 years of O&M.

I/ We offer to execute the works described above and remedy any defects therein in conformity with the Conditions of Contract, specifications, drawings, Bill of Quantities and Addenda for:

For percentage rate..... percentage below/ percentage above/ at par with the rate entered in the schedule of rates, as referred to in clause 13 of ITB.

We undertake to commence the works on receiving the Notice to Proceed with work in accordance with the contract documents.

This Bid and your written acceptance of it shall constitute a binding Contract between us. We understand that you are not 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

The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Specifications and Drawings.

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.

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, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out in the Contract.

Arithmetic errors will be corrected by the Employer pursuant to Clause 27 of the Instructions to Bidders.

## **Summary of Cost Estimates:**

S.No.	Item	Cost (INR)
1	Junction improvement for Andhrapul And Chaukaghat Junction, Varanasi	6,54,31,396
2	Junction improvement for Englishaline&Cantt Junction, Varanasi	3,64,59,153
3	Junction improvement for KachahriChauraha Junction, Varanasi	2,19,70,266
4	Junction improvement for NadesarChauraha Junction, Varanasi	2,79,45,434
5	Junction improvement for Pandeypur Junction, Varanasi	2,70,37,212
6	Junction improvement for Police Line Junction, Varanasi	2,31,15,452
	Total	Rs.20,19,58,913
	1% for Labour Cess on total	20,19,589
	Grand Total	Rs.20,39,78,502

The details cost breakup is as under:

ABSTR	ABSTRACT OF COST - 1							
JUNCT	JUNCTION IMPROVEMENT FOR ANDHRAPUL AND CHAUKAGHAT JUNCTION, VARANASI							
ltem No.	Ref. of Analysis	Description	Unit	Rate	Approx. Quantities	Amounts (Rs.)		
1.01	SOR PWD, Varanasi (Ref. of Analysis- 292) & PWD Spec. No. 17.2.2	Dismantling of 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).	sqm	310	4224.00	1309440		
1.02	SOR PWD, Varanasi (Ref. of Analysis- 2.14 (iia))	Dismantling of existing flexible pavements and disposing of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per Technical Specification Clause 202. ii) By Mechanical Means, a) Bituminous Courses	Cum	220	356	78320		
2.01	SOR PWD, Varanasi (Ref. of Analysis- 2.2 (i))	In area of non thorny jungle Clearing and grubbing road land including uprooting wild vegetation, grass bushes, shrubs, saplings and trees of girth upto 300mm,removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of serviceable terial to be used or auctioned, upto a lead of 1000m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201.(i) In area of non thorny jungle	Hec	28250	1.4	39550		

2.02	SOR PWD, Varanasi (Ref.	Removal of unserviceable soil including excavation,	Cum	120	1399.2111	167905
	of Analysis-	loading and disposal upto				
	(MORT&H	outside municipal limit lead				
	301 (3.11))	but excluding replacement by suitable soil which shall				
		be paid separately as per				
		clause 305				
3.02	SOR PWD,	Construction of	cum	160	1111	177760
	Varanasi (Ref.	embankment with approved material obtained from				
	of Analysis- (MORT&H	borrow pits with all lifts and				
	305 (3.16))	-				
	505 (5.10))	leads, upto 1 km transporting to site,				
		spreading, grading to				
		required slop and				
		compacting to meet				
		requirement of 95% of				
		proctor density.				
3.03	SOR PWD,	Construction of Granular	cum	2005.3	445	892359
0.00	Varanasi (Ref.	Sub Base by providing well				001000
	of Analysis-	graded material,				
	(MORD 401 -	specification in uniform				
	4.7)	layers with motor grader on				
		prepared surface, mixing by				
		mix in place method with				
		rotavator at OMC, and				
		compacting with smooth				
		wheel roller to achieve the				
		desired density, complete as				
		per Technical Specification				
		Clause 401. (Excluding Cost				
		of Materials				
3.04	As per Market	Earthwork with agricultural	cum	75	5816	436200
	Rate	soil for filling the top 300				
		mm depth of the median /				
		island area duly completed				
		as per Technical				
		Specification Clause 305				
4.01	SOR PWD,	with all leads and lifts Providing, laying, spreading				
7.01	Varanasi (Ref.	and compacting stone				
	of Analysis-	aggregates of specific size to				
	(MORD 405 -	water bound macadam				
	4.7)	specification including				
	,	spreading in uniform				
		thickness , hand packing ,				
		rolling with three wheel 80-				

a)		100 kn static roller in stages to proper grade and camber , applying and brooming stone screening /binding material to fill up the interstices of coarse aggregate , watering and compacting to the required density Grading 1 as per Technical Specification clause 404 (Excluding cost of Material ) By Manual Means. Widening Area	cum	2666	556	1482296
5.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 502 (ii) -5.1)	Providing and applying prime coat with bituminous emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.7 Kg/ sqm using mechanical means as per Technical specification clause 502.(Excluding cost of Material )	sqm	26.5	2221	58857
5.02	SOR PWD, Varanasi (Ref. of Analysis- (MORD 503 (iii) -5.2)	Providing and applying tack coat with bitumen VG 10 using emulsion distributor at the rate of 0.35 kg per sqm on the prepared granular surface treated with primer & cleaned with hydraulic broom as per technical specification clause 503(Excluding cost of Material )				
а		3.0-4.0 kg per 10 sqm on primed surface and on dry, hungry bituminous surface	sqm	13.4	2221	29761
b		3.0 to 4.0 kg per 10 sqm on normal bituminous surface	sqm	13.4	29331	393035

5.03	DSR : 16.54.1	Providing and laying Dense	cum	7247.7	2934	21264752
	(as per 2016)	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.				
5.04	DSR : 16.57	Providing and laying	cum	7863.85	1174	9232160
	(as per 2016)	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 chieve				
		the desired compaction and				
		density as per specification,				
		complete and as per				
		directions of Engineer-in-				
		Charge.				
6.01	DSR : 16.69	Providing and laying at or	Cum	5012.65	407.007975	2040189
0.01	(as per 2016)	near ground level factory	Cum	3012.03	407.007373	2040103
	(as her 2010)	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				

6.02	DSP · 16.67	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 1043 SUB HEAD : 16- ROAD WORK 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).	sam	654.2	10295	12682606
6.02	DSR : 16.67 (as per 2016)	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.	sqm	654.3	19385	12683606
7.01	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.13.803	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflection glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes	sqm	550	1477	812350

			1	1	1	
7.02	SOR PWD,	Providing and erecting	nos	5000	35	175000
	Varanasi (Ref.	direction and place				
	of Analysis-					
	MORT&H :	reflectorized sign as per IRC				
	8.6.801	67 2012 made of high				
		intensity grade sheeting				
		vide clause 801.3 fixed over				
		aluminium sheeting 2mm				
		thick with area exceeding				
		0.9 sqm. supported on a				
		mild steel angle iron post				
		75mmx75mmx6mm, 2 Nos				
		firmly fixed to the ground by				
		means of properly designed				
		foundation with M-15 grade				
		cement concrete 45mmx				
		45mmx60mm below ground				
		level as per approved				
		drawing complete (90 cmx				
		90 cm) as per approved				
		drawing)				
7.03	SOR PWD,	Supply and fixing of	nos	5500	4	22000
	Varanasi (Ref.	indication board made of				
	of Analysis-	2mm thick aluminium sheet				
	Traffic Sign	area not exceeding 0-9 sqm.				
	Page: 83 and	supported single angle iron				
	SI no: 8	75x75x5 mm IRC 67 2012				
		high intensity grade.				
7.05	DSR : 16.54.1	Installation of advance				
	(as per 2016)	direction sign in overhead				
	(00 po: 2020)	cantilever signboard				
		(Providing and erecting				
		advance direction micro				
		presmatic retro-				
		•				
		reflectorised sign Type-VII				
		sheeting as per IRC:67 2012				
		made of encapsulated lens				
		type reflective sheeting vide				
		clause 801.3, fixed over				
		aluminium sheeting, 2 mm				
		thick with back frame and				
		post of 350 dia Ms Pipe				
		Sign board size of	sqm	4722.2	123.75	584372
		(5500x2500)				
7.06	As per Market	Bi-directional retro	nos	750	2446	1834500
	Rate	reflective Studs (100X75mm				
		rectangular) at Pedestrian				
		crossing, stopline, island				
L	1	, stoping, stoping, island	I	I	1	1

		barriers and footpath & Hazardous location				
7.07	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and Sl no: 12	Supplying and fixing of site solar road stud powerful mode extra bright aluminium die-cast matt finish conforming to IS 617:1994 designation 4250 apadde solar road studs manufactured by TATA BP solar India or equivalent having high intensity 3x2 nos. flashing throughout the night with backup of atleast 4 nin sunlight days, amber or red colour all weather resistant with superior polycarbonate solar call & side reflectors.	nos	3413	746	2546098
7.08	DSR : 16.65 (as per 2016)	Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti-theft steel to be installed as per direction of Engineer-in-charge.	nos	554.5	95	52678
8.01	As per Market Rate	Road Traffic Signals electrically operated (Since it is a readymade item commercially produced and erected by specialised firm in the electrical and electronic field, rate may be taken based on market enquiry from firms specialised in this field and ISI certified for the approved design and drawing.)	nos	550000	6	3300000

Q 01	DSR · 16.01	Providing and laving factory	sa m	638 05	1550	990272
9.01	DSR : 16.91 (as per 2016)	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc., of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction	sq.m	638.95	1550	990373
10.01	As per Market Rate	of Engineer-in-Charge. Providing Bus Shelter as per design and specification of IRC standards as per the direction of engineer-in charge	Nos	125000	1	125000
11.01	As per Rate Analysis Varanasi	Providing and erecting street light mounted on a steel circular hollow pole of standard specifications for street lighting, 9 m high spaced 40 m apart, 1.8 m overhang if fixed in the median and on one side if fixed on the footpath, fitted with sodium vapour lamp and fixed firmly in concrete foundation. Unit = Each				
a)		Staggered - Single Overhang	Nos	34587	51	2846106
b)		Central - Double Overhang	Nos	55806	0	0

c)		High Mast Light	Nos	350000	1	350000
12.01	As per Market Rate	Providing and fixing Pedestrian railing dully painted in two coats with synthetic enamel paint and grouted on existing kerbs complete as per approved drawings	sqm	63	162	10206
13.01	As per Market Rate	Construction of raised pedestrian (Table Top) crossing of design and specification of IRC standards with direction and approval of engineer-in charge	Cum	5500	80.55	443025
14.01	Estimate received from concerned department	Shifting of Utilities alongwith accessories				
		(1) Lamp Post	nos	25000	5	125000
		(2) Electric Poles	nos	50000	9	450000
		(3) Transformer	nos	150000	3	450000
		(4) Telephone Junction Box	nos	8000	0	0
		(5) Telephone Post	nos	7500	0	0
		(6) Trees	nos	7500	0	0
		(7) Hand Pump	nos	18000	0	0
		(8) Signal Pole	nos	12500	1	12500
		(9) Sign Board	nos	4000	4	16000
Total C	Cost :					65431396
- 6 -						
Abbre	viations					
cum		Cubic Metres				
sqm		Square Metres				
rm		Running Metre				
no		Numbers				
MT		Metric Tonnes				
LS		Lump Sum				

ABSTRACT OF COST - 1 JUNCTION IMPROVEMENT FOR ENGLISHYALINE & CANTT JUNCTION, VARANASI							
Item No.	Ref. of Analysis		Unit	Rate	Approx. Quantiti es	Amounts (Rs.)	
1.01	SOR PWD, Varanasi (Ref. of Analysis-292) & PWD Spec. No. 17.2.2	Dismantling of 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).	sqm	310	622	192820	
1.02	SOR PWD, Varanasi (Ref. of Analysis-2.14 (iia))	Dismantling of existing flexible pavements and disposing of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per Technical Specification Clause 202. ii) By Mechanical Means, a) Bituminous Courses	Cum	220	135	29700	
2.01	SOR PWD, Varanasi (Ref. of Analysis-2.2 (i))	In area of non thorny jungle Clearing and grubbing road	Hec	28250	0.8	22600	
2.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 301 (3.11))	Removal of unserviceable soil including excavation , loading and disposal upto outside municipal limit lead but excluding replacement by suitable soil which shall be paid separately as per	Cum	120	2876	345120	

		clause 305				
		Clause 505				
3.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 305 (3.16))	Constructionofembankment with approvedmaterialobtainedborrow pits with all lifts andleads,upto1kmtransportingtospreading,gradingtosite,spreading,gradingcompactingtorequirementof95%ofproctor density.	cum	160	1438	230080
3.03	SOR PWD, Varanasi (Ref. of Analysis- (MORD 401 - 4.7)	Construction of Granular Sub Base by providing well graded material, specification in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (Excluding Cost of Materials	cum	2005.3	576	1155053
3.04	As per Market Rate	Earthwork with agricultural soil for filling the top 300 mm depth of the median / island area duly completed as per Technical Specification Clause 305 with all leads and lifts	cum	75	2356	176700

	SOR PWD, Varanasi (Ref. of Analysis- (MORD 405 - 4.7)	Providing, laying, spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness , hand packing , rolling with three wheel 80- 100 kn static roller in stages to proper grade and camber , applying and brooming stone screening /binding material to fill up the interstices of coarse aggregate , watering and compacting to the required density Grading 1 as per Technical Specification clause 404 (Excluding cost of Material ) By Manual Means.				
a)		Widening Area	cum	2666	719	1916854
	SOR PWD, Varanasi (Ref. of Analysis- (MORD 502 (ii) -5.1)	Providing and applying prime coat with bituminous emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.7 Kg/ sqm using mechanical means as per Technical specification clause 502.(Excluding cost of Material)	sqm	26.5	2876	76214
	SOR PWD, Varanasi (Ref. of Analysis- (MORD 503 (iii) -5.2)	Providing and applying tack coat with bitumen VG 10 using emulsion distributor at the rate of 0.35 kg per sqm on the prepared granular surface treated with primer & cleaned with hydraulic broom as per technical specification clause 503(Excluding cost of Material )				
a		3.0-4.0 kg per 10 sqm on primed surface and on dry, hungry bituminous surface	sqm	13.4	2876	38538
b		3.0 to 4.0 kg per 10 sqm on normal bituminous surface	sqm	13.4	16033	214842

5.03	DSR : 16.54.1	Providing and laying Dense	cum	7247.7	1604	11625311
	(as per 2016)	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				
		ofEngineer-in-Charge.				
5.04	DSR : 16.57	Providing and laying	cum	7863.85	642	5048592
	(as per 2016)	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 chieve the desired				
		compaction and density as				
		per specification, complete				
		and as per directions of				
		Engineer-in-Charge.				

C 01		Dury isling and lawing at an	C	E012 CE	220	4447007
6.01	DSR : 16.69	Providing and laying at or	Cum	5012.65	229	1147897
	(as per 2016)	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 1043 SUB				
		HEAD: 16- ROAD WORK 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).				
6.02	DSR : 16.67	Providing and fixing at or	sqm	654.3	7851	5136909
	(as per 2016)	near ground level factory				
		made RCC pavement slab of				
		M-30 grade of size				
		450x450x50 mm, including				
		reinforcement with 6 mm dia				
		M.S. bars 4 nos on each side,				
		including setting in position				
		in footpath to the required				
		level and				
		line over a bed of 20 mm				
		average thick cement mortar				
		1:5 (1 cement : 5 coarse				
		sand), having joint thickness				
		not more than 5mm except				
1						
		on curve, including filling of				
		on curve, including filling of joints with same cement				
		on curve, including filling of joints with same cement mortar and making grooves				
		on curve, including filling of joints with same cement mortar and making grooves etc. complete as per				
		on curve, including filling of joints with same cement mortar and making grooves				

7.01	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.13.803	including reflection glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes	sqm	550	772	424600
7.02	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.6.801	reflectorized sign as per IRC	nos	5000	26	130000
7.03	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and SI no: 8	Supply and fixing of indication board made of 2mm thick aluminium sheet area not exceeding 0-9 sqm. supported single angle iron 75x75x5 mm IRC 67 high intensity grade.	nos	5500	4	22000
7.05	DSR : 16.54.1 (as per 2016)	Installation of advance direction sign in overhead cantilever signboard (Providing and erecting advance direction micro presmatic retro- reflectorised sign Type-VII sheeting as per IRC :67 2012 made of encapsulated lens				

		type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with back frame and post of 350 dia Ms Pipe				
		Sign board size of (5500x2500)	sqm	4722.2	68.75	324651
7.06	As per Market Rate	Bi-directional retro reflective Studs (100X75mm rectangular) at Pedestrian crossing, stopline, island barriers and footpath & Hazardous location	nos	750	1365	1023750
7.07	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and SI no: 12	Supplying and fixing of site solar road stud powerful mode extra bright aluminium die-cast matt finish conforming to IS 617:1994 designation 4250 apadde solar road studs manufactured by TATA BP solar India or equivalent having high intensity 3x2 nos. flashing through out the night with backup of atleast 4 nin sunlight days , amber or red colour all weather resistant with superior polycarbonate solar call & side reflectors.	nos	3413	386	1317418
7.08	DSR : 16.65 (as per 2016)	Providing and fixing post delineators made of ABS round body fitted with 2 nos 100 mm dia high reflective reflectors and mounted on MS pipe of 65 mm dia duly powder coated anti-rust and anti theft steel to be installed as per direction of Engineer-in-charge.	nos	554.5	52	28834

8.01	As per Market Rate	Road Traffic Signals electrically operated (Since it is a ready made item commercially produced and erected by specialised firm in the electrical and electronic field, rate may be taken based on market enquiry from firms specialised in this field and ISI certified for the approved design and drawing.)	nos	550000	0	0
9.01	DSR : 16.91 (as per 2016)	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in- Charge.	Sqm	638.95	2510	1603764.5
10.01	As per Market Rate	Providing Bus Shelter as per design and specification of IRC standards as per the direction of engineer-in charge	Nos	125000	1	125000

11.01	As per Rate Analysis Varanasi	Providing and erecting street light mounted on a steel circular hollow pole of standard specifications for street lighting, 9 m high spaced 40 m apart, 1.8 m overhang if fixed in the median and on one side if fixed on the footpath, fitted with sodium vapour lamp and fixed firmly in concrete foundation. Unit = Each				
a)		Staggered - Single Overhang	Nos	34587	9	311283
b)		Central - Double Overhang	Nos	55806	28	1562568
c)		High Mast Light	Nos	350000	1	350000
12.01	As per Market Rate	Pedestrian railing dully painted in two coats with synthetic enamel paint and grouted on existing kerbs complete as per approved drawings	sqm	63	183	11529
13.01	As per Market Rate	Construction of raised pedestrian (Table Top) crossing of design and specification of IRC standards with direction and approval of engineer-in charge	Cum	5500	80.55	443025
14.01	Estimate received from concerned department	Shifting of Utilities alongwith accessories				
		(1) Lamp Post	nos	25000	4	100000
		(2) Electric Poles	nos	50000	25	1250000
		(3) Transformer	nos	150000	0	0
		(4) Telephone Junction Box	nos	8000	0	0
		(5) Telephone Post	nos	7500	0	0
		(6) Trees	nos	7500	6	45000
		(7) Hand Pump	nos	18000	0	0
		(8) Signal Pole	nos	12500	1	12500

		(9) Sign Board	nos	4000	4	16000
Total Cost	:					36459153
Abbreviations						
cum		Cubic Metres				
sqm		Square Metres				
rm		Running Metre				
no		Numbers				
MT		Metric Tonnes				
LS		Lump Sum				

ABSTR	ACT OF COST -	1							
JUNCT	JUNCTION IMPROVEMENT FOR KACHAHRI CHAURAHA JUNCTION, VARANASI								
ltem No.	Ref. of Analysis	Description	Unit	Rate	Approx. Quantities	Amounts (Rs.)			
1.01	SOR PWD, Varanasi (Ref. of Analysis- 292) & PWD Spec. No. 17.2.2	Dismantling of 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).	sqm	310	285.00	88350			
1.02	SOR PWD, Varanasi (Ref. of Analysis- 2.14 (iia))	Dismantling of existing flexible pavements and disposing of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per Technical Specification Clause 202. ii) By Mechanical Means, a) Bituminous Courses	Cum	220	97	21340			
2.01	SOR PWD, Varanasi (Ref. of Analysis-2.2 (i))	In area of non thorny jungle Clearing and grubbing road land including uprooting wild vegetation, grass bushes, shrubs, saplings and trees of girth upto 300mm,removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned, upto a lead of 1000m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201.(i) In area of non thorny jungle	Hec	28250	0.5	14125			
2.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 301 (3.11))	Removal of unserviceable soil including excavation , loading and	Cum	120	1766	211920			
3.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H	Construction of embankment with approved material obtained from	cum	160	883	141280			

	305 (3.16))	and compacting to meet requirement of 95% of proctor density.				
3.03	SOR PWD, Varanasi (Ref. of Analysis- (MORD 401 -4.7)	Construction of Granular Sub Base by providing well graded material, specification in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (Excluding Cost of Materials	cum	2005.3	354	709876.2
3.04	As per Market Rate	Earthwork with agricultural soil for filling the top 300 mm depth of the median / island area duly completed as per Technical Specification Clause 305 with all leads and lifts	cum	75	930	69750
4.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 405 -4.7)	macadam specification including spreading in uniform thickness , hand packing , rolling with three wheel 80-100 kn static roller in stages to proper grade and camber , applying and brooming stone screening /binding material to fill up the interstices of coarse aggregate , watering and compacting to the required density Grading 1 as per Technical Specification clause 404 (Excluding cost of Material ) By Manual Means.				
a)		Widening Area	cum	2666	442	1178372
5.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 502 (ii) -5.1)	including cleaning of road surface and spraying primer at the rate of 0.7 Kg/ sqm using mechanical means as per Technical specification clause 502.(Excluding cost of Material)	sqm	26.5	1766	46799
5.02	SOR PWD,	Providing and applying tack coat				

			1			
	Varanasi	with bitumen VG 10 using emulsion				
	(Ref. of	distributor at the rate of 0.35 kg per				
	Analysis-	sqm on the prepared granular				
	(MORD 503	surface treated with primer &				
	(iii) -5.2)	cleaned with hydraulic broom as				
		per technical specification clause				
		503. (Excluding cost of Material)				
а		3.0-4.0 kg per 10 sqm on primed	sqm	13.4	1766	23664
		surface and on dry, hungry				
		bituminous surface				
b		3.0 to 4.0 kg per 10 sqm on normal	sqm	13.4	9138	122449
		bituminous surface				
5.03	DSR :	Providing and laying Dense Graded	cum	7247.7	914	6624398
	16.54.1 (as	Bituminous Macadam using crushed				
	per 2016)	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				
		ofEngineer-in-Charge.				
5.04	DSR : 16.57	Providing and laying Bituminous	cum	7863.85	366	2878169
5.04	(as per	concrete using crushed stone	cum	7005.05	500	20/0105
	2016)	aggregates of specified grading,				
	2010)	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				
		chieve the desired compaction and				
		density as per specification,				
		complete and as per directions of				
		Engineer-in-Charge.				

6.04		Dura dallara and da ta ta	<u> </u>	5042.65	1 - 1	774040
6.01	DSR : 16.69 (as per 2016)	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 1043 SUB HEAD : 16- ROAD WORK of Engineer-in-charge (length of finished kerb edging shall be measured for payment).(Precast C.C. kerb stone shall be approved by	Cum	5012.65	154	771948
		Engineer-in-charge).				
6.02	DSR : 16.67 (as per 2016)	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in-charge.	sqm	654.3	3713	2429416
7.01	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.13.803	Providing and laying of hot applied thermoplastic compound 2.5 mm	sqm	550	650	357500
7.02	SOR PWD, Varanasi (Ref. of Analysis- MORT&H :	Providing and erecting direction and place identification retro-	nos	5000	30	150000

			1	1		· · · · · · · · · · · · · · · · · · ·
	8.6.801	over aluminium sheeting 2mm thick with area exceeding 0.9 sqm. supported on a mild steel angle iron post 75mmx75mmx6mm, 2 Nos firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 45mmx45mmx60mm below ground level as per approved drawing complete (90 cmx90 cm) as per approved drawing)				
7.03	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and SI no: 8	exceeding 0-9 sqm. supported	nos	5500	8	44000
7.05	DSR : 16.54.1 (as per 2016)	Installation of advance direction sign in overhead cantilever signboard (Providing and erecting advance direction micro presmatic retro- reflectorised sign Type-VII sheeting as per IRC :67 2012 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with back frame and post of 350 dia Ms Pipe				
		Sign board size of (5500x2500)	sqm	4722.2	110	519442
7.06	As per Market Rate	Bi-directional retro reflective Studs (100X75mm rectangular) at Pedestrian crossing, stopline, island barriers and footpath & Hazardous location	nos	750	1084	813000
7.07	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and SI no: 12	finish conforming to IS 617:1994 designation 4250 apadde solar road studs manufactured by TATA BP	nos	3413	278	948814

		&side reflectors.				
7.08	DSR : 16.65	Providing and fixing post	nos	2221	68	151028
7.08	(as per	delineators made of ABS round	1103	2221	08	151028
	2016)	body fitted with 2 nos 100 mm dia				
		high reflective reflectors and				
		mounted on MS pipe of 65 mm dia				
		duly powder coated anti-rust and				
		anti theft steel to be installed as per				
8.01	As per	direction of Engineer-in-charge. Road Traffic Signals electrically	nos	550000	0	0
0.01	Market Rate	operated (Since it is a ready made	1105	330000	Ũ	Ũ
		item commercially produced and				
		erected by specialised firm in the				
		electrical and electronic field, rate				
		may be taken based on market				
		enquiry from firms specialised in this field and ISI certified for the				
		approved design and drawing.)				
9.01	DSR : 16.91	Providing and laying factory made	Sqm	638.95	511	326503.45
	(as per	chamfered edge Cement Concrete				
	2016)	paver blocks in footpath, parks,				
		lawns, drive ways or light traffic				
		parking etc, of required strength,				
		thickness & size/ shape, made by table vibratory method using PU				
		mould, laid in required colour &				
		pattern over 50mm thick				
		compacted bed of sand, compacting				
		and proper embedding/laying of				
		inter locking paver blocks into the				
		sand bedding layer through vibratory compaction by using plate				
		vibrator, filling the joints with sand				
		and cutting of paver blocks as per				
		required size and pattern, finishing				
		and sweeping extra sand. complete				
		all as per direction of Engineer-in-				
		Charge.				10000
10.01	As per	Providing Bus Shelter as per design	Nos	125000	1	125000
	Market Rate	and specification of IRC standards as per the direction of engineer-in				

		charge				
11.01	As per Rate Analysis Varanasi	Providing and erecting street light mounted on a steel circular hollow pole of standard specifications for street lighting, 9 m high spaced 40 m apart, 1.8 m overhang if fixed in the median and on one side if fixed on the footpath,fitted with sodium vapour lamp and fixed firmly in concrete foundation. Unit = Each				
a)		Staggered - Single Overhang	Nos	34587	0	0
b)		Central - Double Overhang	Nos	55806	30	1674180
c)		High Mast Light	Nos	350000	1	350000
12.01	As per Market Rate	Providing and fixing Pedestrian railing dully painted in two coats with synthetic enamel paint and grouted on existing kerbs complete as per approved drawings	sqm	63	84	5292
13.01	As per Market Rate	Construction of raised pedestrian (Table Top) crossing of design and specification of IRC standards with direction and approval of engineer- in charge	Cum	5500	51.3	282150
14.01	Estimate received from concerned department	Shifting of Utilities alongwith accessories				
		(1) Lamp Post	nos	25000	7	175000
		(2) Electric Poles	nos	50000	13	650000
		(3) Transformer	nos	150000	0	0
		(4) Telephone Junction Box	nos	8000	0	0
		(5) Telephone Post	nos	7500	0	0
		(6) Trees	nos	7500	0	0
		(7) Hand Pump	nos	18000	0	0
		(8) Signal Pole	nos	12500	5	62500
		(9) Sign Board	nos	4000	1	4000
Total						21970266

## Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

Abbreviations				
cum		Cubic Metres		
sqm		Square Metres		
rm		Running Metre		
no		Numbers		
MT		Metric Tonnes		
LS		Lump Sum		

JUNCTION IMPROVEMENT FOR NADESAR CHAURAHA JUNCTION, VARANASI								
ltem No.	Ref. of Analysis	Description	Unit	Rate	Approx. Quantities	Amounts (Rs.)		
1.01	SOR PWD, Varanasi (Ref. of Analysis- 292) & PWD Spec. No. 17.2.2	Dismantling of 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).	sqm	310	126.00	39060		
1.02	SOR PWD, Varanasi (Ref. of Analysis- 2.14 (iia))	Dismantling of existing	Cum	220	194	42680		
2.01	SOR PWD, Varanasi (Ref. of Analysis- 2.2 (i))	In area of non thorny jungle	Hec	28250	0.8	22600		
2.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 301 (3.11))	Removal of unserviceable soil including excavation, loading and disposal upto outside municipal limit lead but excluding replacement by suitable soil which shall be paid separately as per clause	Cum	120	1784	214080		

		305				
3.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 305 (3.16))	Construction of embankment with approved material obtained from borrow pits with all lifts and leads,upto 1 km transporting to site, spreading, grading to required slop and compacting to meet requirement of 95% of proctor density.	cum	160	892	142720
3.03	SOR PWD, Varanasi (Ref. of Analysis- (MORD 401 - 4.7)	Construction of Granular Sub Base by providing well graded material, specification in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (Excluding Cost of Materials	cum	2005.3	357	715892
3.04	As per Market Rate	Earthwork with agricultural soil for filling the top 300 mm depth of the median / island area duly completed as per Technical Specification Clause 305 with all leads and lifts	cum	75	1635	122625

4.01 a)	SOR PWD, Varanasi (Ref. of Analysis- (MORD 405 - 4.7)	Providing, laying, spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness , hand packing , rolling with three wheel 80- 100 kn static roller in stages to proper grade and camber , applying and brooming stone screening /binding material to fill up the interstices of coarse aggregate , watering and compacting to the required density Grading 1 as per Technical Specification clause 404 (Excluding cost of Material ) By Manual Means.	cum	2666	446	1189036
a) 5.01	SOR PWD,	Providing and applying	sqm	26.5	1784	47276
	Varanasi (Ref. of Analysis- (MORD 502 (ii) -5.1)	prime coat with bituminous emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.7 Kg/ sqm using mechanical means as per Technical specification clause 502.(Excluding cost of Material)	- <b>3</b> 4111	20.3	1.04	77210
5.02	SOR PWD, Varanasi (Ref. of Analysis- (MORD 503 (iii) -5.2)	Providing and applying tack coat with bitumen VG 10 using emulsion distributor at the rate of 0.35 kg per sqm on the prepared granular surface treated with primer & cleaned with hydraulic broom as per technical specification clause 503(Excluding cost of Material)				
а		3.0-4.0 kg per 10 sqm on primed surface and on dry, hungry bituminous surface	sqm	13.4	1784	23906
b		3.0 to 4.0 kg per 10 sqm on normal bituminous surface	sqm	13.4	12959	173651

F 02		Descriptions and but D		7247 7	1200	0202040
5.03	DSR : 16.54.1 (as per 2016)	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 ofEngineer-in-Charge.	cum	7247.7	1296	9393019
5.04	DSR : 16.57 (as per 2016)	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 chieve the desired compaction and density as per specification, complete and as per directions of Engineer-in-Charge.	cum	7863.85	519	4081338
6.01	DSR : 16.69 (as per 2016)	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	Cum	5012.65	207	1037619

				[		I
6.02	DSR : 16.67 (as per 2016)	curve shall not to more than 5mm) including making drainage opening wherever required complete etc. as per direction 1043 SUB HEAD : 16- ROAD WORK 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). Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement	sqm	654.3	5448	3564626
		mortar and making grooves etc. complete as per direction of Engineer-in- charge.				
7.01	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.13.803	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflection glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes	sqm	550	591	325050
7.02	SOR PWD, Varanasi (Ref. of Analysis- MORT&H :	Providinganderectingdirectionandplaceidentificationretro-reflectorizedsign asper	nos	5000	22	110000

	8.6.801	67 2012 made of high intensity grade sheeting vide clause 801.3 fixed over aluminium sheeting 2mm thick with area exceeding 0.9 sqm. supported on a mild steel angle iron post 75mmx75mmx6mm, 2 Nos firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 45mmx45mmx60mm below ground level as per approved drawing complete (90 cmx90 cm) as per approved drawing)				
7.03	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and SI no: 8	Supply and fixing of indication board made of 2mm thick aluminium sheet area not exceeding 0-9 sqm. supported single angle iron 75x75x5 mm IRC 67 2012 high intensity grade.	nos	5500	3	16500
7.05	DSR : 16.54.1 (as per 2016)	Installation of advance direction sign in overhead cantilever signboard (Providing and erecting advance direction micro presmatic retro- reflectorised sign Type-VII sheeting as per IRC :67 2012 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with back frame and post of 350 dia Ms Pipe Sign board size of	sqm	4722.2	41.25	194791
7.06	As per Market Rate	(5500x2500) Bi-directional retro reflective Studs (100X75mm rectangular) at Pedestrian crossing, stopline, island barriers and footpath & Hazardous location	nos	750	1257	942750

7.07	600 D14/5			2442	244	000770
7.07	SOR PWD,	Supplying and fixing of site	nos	3413	244	832772
	Varanasi (Ref.	solar road stud powerful				
	of Analysis-	mode extra bright aluminium				
	Traffic Sign	die-cast matt finish				
	Page: 83 and	conforming to IS 617:1994				
	Sl no: 12	designation 4250 apadde				
		solar road studs				
		manufactured by TATA BP				
		solar India or equivalent				
		having high intensity 3x2 nos.				
		flashing through out the				
		night with backup of atleast 4				
		nin sunlight days , amber or				
		red colour all weather				
		resistant with superior				
		polycarbonate solar call &				
		side reflectors.				
7.08	DSR : 16.65	Providing and fixing post	nos	554.5	52	28834
7.08		delineators made of ABS	1105	554.5	52	20054
	(as per 2016)					
		round body fitted with 2 nos				
		100 mm dia high reflective				
		reflectors and mounted on				
		MS pipe of 65 mm dia duly				
		powder coated anti-rust and				
		anti theft steel to be installed				
		as per direction of Engineer-				
		in-charge.				
8.01	As per	Road Traffic Signals	nos	550000	0	0
	Market Rate	electrically operated (Since it				
		is a ready made item				
		commercially produced and				
		erected by specialised firm in				
		the electrical and electronic				
		field, rate may be taken				
		based on market enquiry				
		from firms specialised in this				
		field and ISI certified for the				
		approved design and				
		drawing.)				
		arawing./				

		Droviding and loving factory	Care	620.05	1402	052242
9.01	DSR : 16.91 (as per 2016)	Providing and laying factory made chamfered edge	Sqm	638.95	1492	953313
	(00 pci 2010)	Cement Concrete paver				
		blocks in footpath, parks,				
		lawns, drive ways or light				
		traffic parking etc, of				
		required strength, thickness				
		& size/ shape, made by table				
		vibratory method using PU				
		mould, laid in required colour				
		& pattern over 50mm thick				
		compacted bed of sand,				
		compacting and proper				
		embedding/laying of inter				
		locking paver blocks into the				
		sand bedding layer through				
		vibratory compaction by				
		using plate vibrator, filling				
		the joints with sand and				
		cutting of paver blocks as per				
		required size and pattern,				
		finishing and sweeping extra				
		sand. complete all as per				
		direction of Engineer-in-				
		Charge.				
10.01	As per	Providing Bus Shelter as per	Nos	125000	1	125000
10.01	Market Rate	design and specification of	1103	125000	1	125000
	Market hate	IRC standards as per the				
		direction of engineer-in				
		charge				
11.01	As per Rate	Providing and erecting street				
	Analysis	light mounted on a steel				
	Varanasi	circular hollow pole of				
		standard specifications for				
		street lighting, 9 m high				
		spaced 40 m apart, 1.8 m				
		overhang if fixed in the				
		median and on one side if				
		fixed on the footpath, fitted				
		with sodium vapour lamp				
		and fixed firmly in concrete				
		foundation.				
		Unit = Each				
a)		Staggered - Single Overhang	Nos	34587	21	726327
b)		Central - Double Overhang	Nos	55806	0	0
c)		High Mast Light	Nos	350000	2	700000

12.01	As per Market Rate	Providing and fixing Pedestrian railing dully painted in two coats with synthetic enamel paint and grouted on existing kerbs complete as per approved drawings	sqm	63	63	3969
13.01	As per Market Rate	Construction of raised pedestrian (Table Top) crossing of design and specification of IRC standards with direction and approval of engineer-in charge	Cum	5500	81	445500
14.01	Estimate received from concerned department	Shifting of Utilities alongwith accessories				
		(1) Lamp Post	nos	25000	3	75000
		(2) Electric Poles	nos	50000	23	1150000
		(3) Transformer	nos	150000	3	450000
		(4) Telephone Junction Box	nos	8000	0	0
		(5) Telephone Post	nos	7500	4	30000
		(6) Trees	nos	7500	1	7500
		(7) Hand Pump	nos	18000	1	18000
		(8) Signal Pole	nos	12500	0	0
		(9) Sign Board	nos	4000	2	
Total C	ost :					27945434
Abbrev	riations					
cum		Cubic Metres				
sqm		Square Metres				
rm		Running Metre				
no		Numbers				
MT		Metric Tonnes				
LS		Lump Sum				

JUNCTION IMPROVEMENT FOR PANDEYPUR JUNCTION, VARANASI							
ltem No.	Ref. of Analysis	Description	Unit	Rate	Approx. Quantiti es	Amounts (Rs.)	
1.01	SOR PWD, Varanasi (Ref. of Analysis-292) & PWD Spec. No. 17.2.2	Dismantling of 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).	sqm	310	1881	583110	
1.02	SOR PWD, Varanasi (Ref. of Analysis-2.14 (iia))	Dismantling of existing flexible pavements and disposing of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per Technical Specification Clause 202. ii) By Mechanical Means, a) Bituminous Courses	Cum	220	159	34980	
2.01	SOR PWD, Varanasi (Ref. of Analysis-2.2 (i))	In area of non thorny jungle Clearing and grubbing road land including uprooting wild vegetation,grassbushes,shrubs,s aplings and trees of girth upto 300mm,removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned,upto a lead of 1000m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201.(i) In area of non thorny jungle	Hec	28250	0.5	14125	
2.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 301 (3.11))	Removal of unserviceable soil including excavation , loading and disposal upto outside municipal limit lead but excluding replacement by suitable soil which shall be paid separately as per clause 305	Cum	120	2148	257760	

3.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 305 (3.16))	Construction of embankment with approved material obtained from borrow pits with all lifts and leads,upto 1 km transporting to site, spreading, grading to required slop and compacting to meet requirement of 95% of proctor density.	cum	160	1074	171840
3.03	SOR PWD, Varanasi (Ref. of Analysis- (MORD 401 - 4.7)	Construction of Granular Sub Base by providing well graded material, specification in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (Excluding Cost of Materials	cum	2005.3	430	862279
3.04	As per Market Rate	Earthwork with agricultural soil for filling the top 300 mm depth of the median / island area duly completed as per Technical Specification Clause 305 with all leads and lifts	cum	75	1765	132375
4.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 405 - 4.7)	Providing, laying, spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kn static roller in stages to proper grade and camber, applying and brooming stone screening /binding material to fill up the interstices of coarse aggregate, watering and compacting to the required density Grading 1 as per Technical Specification clause 404 (Excluding cost of Material) By Manual Means.				
a)		Widening Area	cum	2666	537	1431642

5.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 502 (ii) -5.1)	Providing and applying prime coat with bituminous emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.7 Kg/ sqm using mechanical means as per Technical specification clause 502.(Excluding cost of Material)	sqm	26.5	2148	56922
5.02	SOR PWD, Varanasi (Ref. of Analysis- (MORD 503 (iii) -5.2)	Providing and applying tack coat with bitumen VG 10 using emulsion distributor at the rate of 0.35 kg per sqm on the prepared granular surface treated with primer & cleaned with hydraulic broom as per technical specification clause 503(Excluding cost of Material )				
a		3.0-4.0 kg per 10 sqm on primed surface and on dry, hungry bituminous surface	sqm	13.4	2148	28783
b		3.0 to 4.0 kg per 10 sqm on normal bituminous surface	sqm	13.4	11580	155172
5.03	DSR : 16.54.1 (as per 2016)	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 ofEngineer-in-Charge.	cum	7247.7	1158	8392837

5.04	DSR : 16.57	Providing and laying Bituminous	cum	7863.85	464	3648826
	(as per 2016)	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 chieve the				
		desired compaction and density				
		as per specification, complete				
		and as per directions of				
		Engineer-in-Charge.				
6.01	DSR : 16.69	Providing and laying at or near	Cum	5012.65	191	957416
	(as per 2016)	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 1043 SUB HEAD : 16-				
		ROAD WORK 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).				

6.02	DSR : 16.67	Providing and fixing at or near	sqm	654.3	5881	3847938
0.02	(as per 2016)	providing and number of heat ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer-in- charge.	Sqiii	034.3	5001	3047330
7.01	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.13.803	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflection glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes	sqm	550	902	496100
7.02	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.6.801	Providing and erecting direction and place identification retro- reflectorized sign as per IRC 67 2012 made of high intensity grade sheeting vide clause 801.3 fixed over aluminium sheeting 2mm thick with area exceeding 0.9 sqm. supported on a mild steel angle iron post 75mmx75mmx6mm, 2 Nos firmly fixed to the ground by means of properly designed foundation with M-15 grade cement concrete 45mmx45mmx60mm below ground level as per approved drawing complete (90 cmx90 cm) as per approved drawing)	nos	5000	26	130000

7.03	SOR PWD, Varanasi (Ref. of	Supply and fixing of indication board made of 2mm thick aluminium sheet area not	nos	5500	4	22000
	Analysis-	exceeding 0-9 sqm. supported				
	Traffic Sign	single angle iron 75x75x5 mm				
	Page : 83	IRC 67 2012 high intensity				
	and SI no: 8	grade.				
7.05	DSR : 16.54.1	Installation of advance direction				
	(as per 2016)	sign in overhead cantilever				
		signboard (Providing and				
		erecting advance direction				
		micro presmatic retro-				
		reflectorised sign Type-VII				
		sheeting as per IRC :67 2012				
		made of encapsulated lens type				
		reflective sheeting vide clause				
		801.3, fixed over aluminium				
		sheeting, 2 mm thick with back				
		frame and post of 350 dia Ms				
		Ріре				
		Sign board size of (5500x2500)	sqm	4722.2	68.75	324651
7.06	As per	Bi-directional retro reflective	nos	750	1418.9	1064175
	Market Rate	Studs (100X75mm rectangular)				
		at Pedestrian crossing, stopline,				
		island barriers and footpath $\&$				
		Hazardous location				
7.07	SOR PWD,	Supplying and fixing of site solar	nos	3413	216	737208
	Varanasi	road stud powerful mode extra				
	(Ref. of	bright aluminium die-cast matt				
	Analysis-	finish conforming to IS				
	Traffic Sign	617:1994 designation 4250				
	Page : 83	apadde solar road studs				
	and SI no: 12	manufactured by TATA BP solar				
		India or equivalent having high				
		intensity 3x2 nos. flashing				
		through out the night with				
		backup of atleast 4 nin sunlight				
		days , amber or red colour all				
		weather resistant with superior				
		polycarbonate solar call & side				
		reflectors.				

7.08	DSR : 16.65	Providing and fixing post	nos	554.5	99	54896
7.00	(as per 2016)	delineators made of ABS round	1105	JJ <del>+</del> .J		J4030
	(as per 2010)	body fitted with 2 nos 100 mm				
		dia high reflective reflectors and				
		0				
		mounted on MS pipe of 65 mm				
		dia duly powder coated anti-				
		rust and anti theft steel to be				
		installed as per direction of				
		Engineer-in-charge.				
8.01	As per	Road Traffic Signals electrically	nos	550000	0	0
	Market Rate	operated (Since it is a ready				
		made item commercially				
		produced and erected by				
		specialised firm in the electrical				
		and electronic field, rate may be				
		taken based on market enquiry				
		from firms specialised in this				
		field and ISI certified for the				
		approved design and drawing.)				
9.01	DSR : 16.91	Providing and laying factory	Sqm	638.95	295	188490
	(as per 2016)	made chamfered edge Cement				
		Concrete paver blocks in				
		footpath, parks, lawns, drive				
		ways or light traffic parking etc,				
		of required strength, thickness				
		& size/ shape, made by table				
		vibratory method using PU				
		, mould, laid in required colour &				
		pattern over 50mm thick				
		compacted bed of sand,				
		compacting and proper				
		embedding/laying of inter				
		locking paver blocks into the				
		sand bedding layer through				
		vibratory compaction by using				
		plate vibrator, filling the joints				
		with sand and cutting of paver				
		blocks as per required size and				
		pattern, finishing and sweeping				
		extra sand. complete all as per direction of Engineer in Charge				
10.0	Ac	direction of Engineer-in-Charge.	Noc	125000	1	125000
10.0	As per	Providing Bus Shelter as per	Nos	125000	T	125000
1	Market Rate	design and specification of IRC				
		standards as per the direction				
		of engineer-in charge				

11.0	As per Rate Analysis Varanasi	Providing and erecting street light mounted on a steel circular hollow pole of standard specifications for street lighting, 9 m high spaced 40 m apart, 1.8 m overhang if fixed in the median and on one side if fixed on the footpath,fitted with sodium vapour lamp and fixed firmly in concrete foundation.Unit = Each	Nee	24597	20	069426
a)		Staggered - Single Overhang	Nos	34587	28	968436
b)		Central - Double Overhang	Nos	55806	4	223224
c)		High Mast Light	Nos	350000	2	700000
12.0 1	As per Market Rate	Providing and fixing Pedestrian railing dully painted in two coats with synthetic enamel paint and grouted on existing kerbs complete as per approved drawings	sqm	63	177	11151
13.0 1	As per Market Rate	Construction of raised pedestrian (Table Top) crossing of design and specification of IRC standards with direction and approval of engineer-in charge	Cum	5500	74.25	408375
14.0 1	Estimate received from concerned department	Shifting of Utilities alongwith accessories				
	·	(1) Lamp Post	nos	25000	2	50000
		(2) Electric Poles	nos	50000	16	800000
		(3) Transformer	nos	150000	1	150000
		(4) Telephone Junction Box	nos	8000	0	0
		(5) Telephone Post	nos	7500	0	0
		(6) Trees	nos	7500	1	7500
		(7) Hand Pump	nos	18000	0	0
		(8) Signal Pole	nos	12500	0	0
		(9) Sign Board	nos	4000	3	

## Bidding Document for Procurement of Works for Improvement & Upgradation of Intersections in Varanasi

Total (	Total Cost :						
Abbreviations							
cum		Cubic Metres					
sqm		Square Metres					
rm		Running Metre					
no		Numbers					
MT		Metric Tonnes					
LS		Lump Sum					

ABSTR	ACT OF COST - 1					
JUNCT	ION IMPROVEME	INT FOR POLICE LINE JUNCTION,	VARANA	SI		
ltem No.	Ref. of Analysis	Description	Unit	Rate	Approx. Quantiti es	Amounts (Rs.)
1.01	SOR PWD, Varanasi (Ref. of Analysis- 292) & PWD Spec. No. 17.2.2	Dismantling of 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).	sqm	310	114.00	35340
1.02	SOR PWD, Varanasi (Ref. of Analysis- 2.14 (iia))	Dismantling of existing flexible pavements and disposing of dismantled materials upto a lead of 100 m, stacking serviceable and unserviceable materials separately as per Technical Specification Clause 202. ii) By Mechanical Means, a) Bituminous Courses	Cum	220	191	42020
2.01	SOR PWD, Varanasi (Ref. of Analysis-2.2 (i))	In area of non thorny jungle Clearing and grubbing road land including uprooting wild vegetation,grassbushes,shrub s,saplings and trees of girth upto 300mm,removal of stumps of such trees cut earlier and disposal of unserviceable materials and stacking of serviceable material to be used or auctioned,upto a lead of 1000m including removal and disposal of top organic soil not exceeding 150 mm in thickness as per Technical Specification Clause 201.(i) In area of non thorny jungle	Hec	28250	0.35	9888
2.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 301 (3.11))	Removal of unserviceable soil including excavation, loading and disposal upto outside municipal limit lead but excluding replacement by suitable soil which shall be paid separately as per clause 305	Cum	120	332	39840

3.02	SOR PWD, Varanasi (Ref. of Analysis- (MORT&H 305 (3.16))	Construction of embankment with approved material obtained from borrow pits with all lifts and leads,upto 1 km transporting to site, spreading, grading to required slop and compacting to meet requirement of 95% of proctor density.	cum	160	166	26560
3.03	SOR PWD, Varanasi (Ref. of Analysis- (MORD 401 - 4.7)	Construction of Granular Sub Base by providing well graded material, specification in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (Excluding Cost of Materials	cum	2005.3	67	134355
3.04	As per Market Rate	Earthwork with agricultural soil for filling the top 300 mm depth of the median / island area duly completed as per Technical Specification Clause 305 with all leads and lifts	cum	75	1005	75375
4.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 405 - 4.7)	Providing, laying, spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness , hand packing , rolling with three wheel 80- 100 kn static roller in stages to proper grade and camber , applying and brooming stone screening /binding material to fill up the interstices of coarse aggregate , watering and compacting to the required density Grading 1 as per Technical Specification clause 404 (Excluding cost of Material ) By Manual Means.				

a)		Widening Area	cum	2666	83	221278
5.01	SOR PWD, Varanasi (Ref. of Analysis- (MORD 502 (ii) -5.1)	Providing and applying prime coat with bituminous emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.7 Kg/ sqm using mechanical means as per Technical specification clause 502.(Excluding cost of Material)	sqm	26.5	332	8798
5.02	SOR PWD, Varanasi (Ref. of Analysis- (MORD 503 (iii) -5.2)	Providing and applying tack coat with bitumen VG 10 using emulsion distributor at the rate of 0.35 kg per sqm on the prepared granular surface treated with primer & cleaned with hydraulic broom as per technical specification clause 503(Excluding cost of Material)				
а		3.0-4.0 kg per 10 sqm on primed surface and on dry, hungry bituminous surface	sqm	13.4	332	4449
b		3.0 to 4.0 kg per 10 sqm on normal bituminous surface	sqm	13.4	8958	120037
5.03	DSR : 16.54.1 (as per 2016)	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 ofEngineer-in-Charge.	cum	7247.7	896	6493939

5.04	DSR : 16.57 (as per 2016)	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 chieve the desired compaction and density as per specification, complete and as per directions of Engineer-in- Charge.	cum	7863.85	359	2823122
6.01	DSR : 16.69 (as per 2016)	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 1043 SUB HEAD : 16- ROAD WORK of Engineer-in-charge (length of finished kerb edging shall be measured for payment).(Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	5012.65	156	781973

6.00		Dura della a su difficia di stato		654.2	2240	2404254
6.02	DSR : 16.67 (as per 2016)	Providing and fixing at or near ground level factory made RCC pavement slab of M-30 grade of size 450x450x50 mm, including reinforcement with 6 mm dia M.S. bars 4 nos on each side, including setting in position in footpath to the required level and line over a bed of 20 mm average thick cement mortar 1:5 (1 cement : 5 coarse sand), having joint thickness not more than 5mm except on curve, including filling of joints with same cement mortar and making grooves etc. complete as per direction of Engineer- in-charge.	sqm	654.3	3349	2191251
7.01	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.13.803	Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflection glass beads @ 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 .The finished surface to be level, uniform and free from streaks and holes	sqm	550	900	495000
7.02	SOR PWD, Varanasi (Ref. of Analysis- MORT&H : 8.6.801	Providing and erecting direction and place	nos	5000	20	100000

		cm) as per approved drawing)				
7.03	SOR PWD, Varanasi (Ref. of Analysis- Traffic Sign Page : 83 and SI no: 8	Supply and fixing of indication board made of 2mm thick aluminium sheet area not exceeding 0-9 sqm. supported single angle iron 75x75x5 mm IRC 67 high intensity grade.	nos	5500	4	22000
7.05	DSR : 16.54.1 (as per 2016)	Installation of advance direction sign in overhead cantilever signboard (Providing and erecting advance direction micro presmatic retro- reflectorised sign Type-VII sheeting as per IRC :67 made of encapsulated lens type reflective sheeting vide clause 801.3, fixed over aluminium sheeting, 2 mm thick with back frame and post of 350 dia Ms Pipe		4700 0	27.5	1200001
7.06	As per Market Rate	Sign board size of (5500x2500) Bi-directional retro reflective Studs (100X75mm rectangular) at Pedestrian crossing, stopline, island barriers and footpath & Hazardous location	sqm nos	4722.2	27.5	129861 757500

7.07		Supplying and fiving of site	noc	3413	772	2634836
7.07	SOR PWD,	Supplying and fixing of site	nos	3413	112	2034830
	Varanasi (Ref.	solar road stud powerful				
	of Analysis-	mode extra bright aluminium				
	Traffic Sign	die-cast matt finish				
	Page : 83 and	conforming to IS 617:1994				
	Sl no: 12	designation 4250 apadde solar				
		road studs manufactured by				
		TATA BP solar India or				
		equivalent having high				
		intensity 3x2 nos. flashing				
		through out the night with				
		backup of atleast 4 nin				
		sunlight days , amber or red				
		colour all weather resistant				
		with superior polycarbonate				
		solar call & side reflectors.				
7.08	DSR : 16.65	Providing and fixing post	nos	554.5	52	28834
7.00	(as per 2016)	delineators made of ABS	1103	554.5	52	20054
	(as per 2010)	round body fitted with 2 nos				
		100 mm dia high reflective				
		reflectors and mounted on MS				
		pipe of 65 mm dia duly				
		powder coated anti-rust and				
		anti theft steel to be installed				
		as per direction of Engineer-				
		in-charge.				
8.01	As per Market	Road Traffic Signals	nos	550000	4	2200000
	Rate	electrically operated (Since it				
		is a ready made item				
		commercially produced and				
		erected by specialised firm in				
		the electrical and electronic				
		field, rate may be taken based				
		on market enquiry from firms				
		specialised in this field and ISI				
		certified for the approved				
		design and drawing.)				
	1	Bil alla alla alla alla alla alla alla a				

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12.0 1	As per Market Rate	Providing and fixing Pedestrian railing dully painted in two coats with synthetic enamel paint and grouted on existing kerbs complete as per approved drawings	sqm	63	90	5670
13.0 1	As per Market Rate	Construction of raised pedestrian (Table Top) crossing of design and specification of IRC standards with direction and approval of engineer-in charge	Cum	5500	62.1	341550
14.0 1	Estimate received from concerned department	Shifting of Utilities alongwith accessories				
		(1) Lamp Post	nos	25000	1	25000
		(2) Electric Poles	nos	50000	8	400000
		(3) Transformer	nos	150000	3	450000
		(4) Telephone Junction Box	nos 8000 0		0	0
		(5) Telephone Post	nos	7500	7	52500
		(6) Trees	nos	7500	5	37500
		(7) Hand Pump	nos	18000	0	0
		(8) Signal Pole	nos	12500	4	50000
		(9) Sign Board	nos	4000	4	16000
Total C	ost :					23115452
Abbrev	viations					
cum		Cubic Metres				
sqm		Square Metres				
rm		Running Metre				
no		Numbers				
MT		Metric Tonnes				
LS		Lump Sum				

# Section 8 Letter of Acceptance

To, M/s.....

(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......) 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 Varanasi Smart City Limited

No. & Dated as above

## Issue of Notice to proceed with the work

LETTER NO.....

DATED.....

To, .....

Dear Sir,

Yours's faithfully

Chief Executive Officer Varanasi Smart City Limited

#### Standard Form: Agreement

#### Agreement

This agreement, made the ..... day of ..... of 2017between Chief Executive Officer, Varanasi Smart City Limited (hereinafter called "the Employer") of the one part, and

.....

.....

.....

[Name and address of Contractor/JV] (Hereinafter called "the Contractor" of the other part).

Whereas the Employer is desirous that the Contractor execute the Work of District- Varanasi (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.

## BANK GUARANTEE FOR ADVANCE PAYMENT

# (BankGuarantee)

To, Chief Executive Officer, Varanasi Smart City Limited Sigra, Varanasi, Uttar Pradesh

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, which in the case of a joint venture shall be then a meof the joint venture (whether legally constituted or prospective) or the names of all members thereof] (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 \_\_\_\_\_\_ [in words].

	We, th	e						[ba	ınk	or	financia	l ins	stitution], as
instru	icted by the	e Cont	ractor, a	agree unc	condit	tionally	y and irrevocat	oly to	gua	rant	ee as prir	nary (	obligator and
not a	s Surety m	erely,	the pay	yment to							name of	Emp	loyer] on his
first c	lemand wit	hout v	vhatsoev	ver right	of ob	jection	on our part						
and	without	his	first	claim	to	the	Contractor,	in	the	;	amount	not	exceeding
						_	[amour	ıt			of		guarantee]1

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder 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:	

<sup>&</sup>lt;sup>1</sup>An amount shall be inserted by the bank or financial institution representing the amount of the Advance Payment, and denominated in Indian Rupees.

## PERFORMANCE BANK GUARANTEE

To, Chief Executive Officer, Varanasi Smart City Limited Sigra, Varanasi, Uttar Pradesh

 WHEREAS
 [Name and Address of Contractor,whichinthecaseofajoint ventureshallbethenameofthejointventure(whether legally constituted or prospective) orthenamesofallmembersthereof] (Hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. \_\_\_\_\_ dated \_\_\_\_\_ to execute \_\_\_\_\_ [Name of Contract and brief description of Works] herein after called "The Contract".

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

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

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

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

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder 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 of 5 years after intended completion date.

Signature and seal	of the guarantor	
$\mathcal{U}$	0	

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_\_
Date \_\_\_\_\_