Surat Urban Development Authority, Surat

TENDER NOTCE NO.: SUDA/CB /15/ 2019-20

Tender Notice Sr. No. 01

NAMEOFWORK: - (1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50 KM) (2)Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area.(Length:-2.10 KM) (3) Remaningportion between villsges bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)

Technical Bid

Downloading of tender documents	**Up To Date:09/01/2020 Up to 17.00 hrs.**
Last date of the Document downloading and Online bid submission	**Up To Date::09/01/2020 up to 18.00 hrs.**
Physical submission of EMD, Tender Fee and Volume-I & II of tender with PQ Supporting documents	Between**10/01/2020 to 17/01/2020** from **11.00 hrs. to 18.00 hrs.** at the office of "Executive Engineer, Surat Urban Development Authority, SUDA Bhavan, opp. Aagam arcade, Vesu Aabhva Road, vesu, Surat – 395 001 by Speed Post/RPAD only", in sealed cover duly superscribed with name of work and tender notice no.
Opening of Price Bid (On line)	**//2020at 12.00 hrs.** in the office of Chief Executive Authority, Surat Urban Development Authority, "SUDA Bhavan" opp. Aagam arcade, Vesu Aabhva Road,vesu, Surat.

CLIENT: The Chief Executive Authority
Surat Urban Development Authority
"SUDA Bhavan" opp. Aagam arcade,
Vesu Aabhva Road,vesu, Surat – 395 007.
Ph.: 91-261-2465007 to 09
Fax: 91-261-2470318
Email: sudaonline1978@gmail.com
Web: http://www.sudaonline.com

Executive Engineer
Surat Urban Development Authority
Surat

SURAT URBAN DEVELOPMENT AUTHORITY

Tender Notice No.	**(On line) NoSUDA/CB /15/ 2019-20**	
Organization Name	**SURAT URBAN DEVELOPMENT AUTHORITY**	
Name of Work	**(1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50 KM) (2) Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area. (Length:-2.10 KM)(3) Remaning Portion between villsges bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)**	
Tender Notice	Online	
Tender Type	Online Open- % (percentage) rate based.	
Product	-	
Type of Contract	Works	
Bidding Currency	Single-Indian National Rupees	
Joint Venture	N.A	
Schedule of E-Tender	Downloading of tender document	**Up To Date: 09/01/2020 Up to 17.00 hrs.**
	Last date of Document downloading & online Bid Submission.	**Up To Date: 09/01/2020 up to 18.00 hrs.**
	Physical submission of EMD, tender fee and Technical Bid Volume-I and Supporting documents.	Between 10**/01/2020 to 17/01/2020 from11.00 hrs. to 18.00 hrs** hrs. at the office of "Executive Engineer, Surat Urban Development Authority, SUDA Bhavan opp. Aagam arcade, vesu aabhva road, vesu, , Surat – 395 001. by Speed Post/RPAD only." In sealed cover duly super scribed with name of work and tender notice no.
	Opening of Price Bid (On line)	**/ /2020 at12.00** hrs. in the office of Chief Executive Authority, Surat Urban Development Authority, Surat.
	Bid Validity period	120 days from the last date of online submission of tender.
	Project Duration	330 Days (11 Months)
Payment Details	Document Fee	**Rs.2688 /-** In form of Account Payee Demand Draft payable in favour of "Chief Executive Authority, Surat Urban Development Authority".
	EMD	**Rs. 94,870 /-** in the form of DD payable at surat of any Nationalized /Scheduled Bank.
	Estimated Amount	**Rs. 94,86,853Ps.50**
General Terms & Conditions	Bidders who wish to participate in this E-Tender will have to procure valid digital certificate as per information Technology Act. 2000. Bidders can procure this certificate from any of the Government approved certifying agency i.e. (n) Code Solution. Bidders shall upload the tender documents after submitting the DD details for tender fees and EMD details online. The Demand Draft towards Tender Documents fees can be submitted along with Earnest Money Deposit before the due date as specified above. This should be as per details given online and it should be drawn before last date of the uploading of the tender. The intending bidders shall have to submit the following documents along with the EMD (BID SECURITY). The Bidder should submit all the forms electronically only. (a) The CD containing technical & financial details required for evaluation dully digitally signed.	

	(b) Power of attorney (c) Company's profile and certificate of registration of company under the law **DOWNLOAD OF TENDER DOCUMENT:** The tender document for these work are available only in Electronic format which can be download free of cost by the bidder. **SUBMISSION OF TENDER:** Bidder shall submit their offer in electronic format on above mentioned website on or before the scheduled date and time as
	Mentioned, after Digitally Signing the same. No Price bid in physical form will be accepted and any such offer if received by SURAT URBAN DEVELOPMENT AUTHORITY will be out rightly rejected. Bidder shall have to submit separate account payee DD for Tender Fee and EMD drawn in favour of Chief Executive Authority, SURAT URBAN DEVELOPMENT AUTHORITY, SURAT.
	OPENING OF TENDER: The Technical Bid will be opened on the specified date online on website https://suda.nprocure.com Bidders or their representative who wish to participate in online tender opening can log on to https://suda.nprocure.com on the due date and time, mark their presence and participate in online tender opening. Bidders who wish to remain present at Surat Urban Development Authority, Surat at the time of tender opening can do so. Only one representative of each firm will be allowed to remain present.
Information for online participation	1. Internet site address for e-Tendering activities will be https://suda.nprocure.com 2. Interested bidders can view detailed tender notice and download tender document from the above mentioned website. 3. Bidders who wish to participate in online tender have to register with the website through the "New User Registration" link provided on the home page. Bidder will create login id & password on the own in registration process. 4. Bidders who wish to participate in this tender need to procure Digital Certificate as per Information Technology Act-2000 using that they can digitally sign their electronic bids. Bidders can procure the same from any of the CCA approved certifying agencies, or they may contact (n) code Solution at below mentioned address and they will assist them in procuring the same. Bidders who already have a valid Digital Certificate need not to procure the same. In case bidders need any clarification regarding online participation, they can contact **M/s. (n)code solution** 301, G.N.F.C. Info Tower,Near Grant Bhagwati Hotel, Ahmedabad 380 015 INDIA Tel: +91 79 26857316, Tel: +91 79 26857317, Tel: +91 79 26857318 E-mail: nprocure@gnvfc.netURL: https:/suda.nprocure.com 5. Bidders who wish to participate in e-Tender need to fill data in predefined forms of tender fee, EMD, Volume-I of tender i.e. PQ(Technical) or experience details and Price bid only.
	6. Bidder should upload scan copies of reference documents in support of their eligibility of the bid. 7. After filling data in predefined forms bidders need to click on final submission link to submit their encrypted bid. Bidder can also submit Document Fees, EMD, Volume-I of tender document & Reference Documents in hard copy.

Executive Engineer
Surat Urban Development Authority
Surat

TENDER NOTICE NO : SUDA/CB/15/2019-20

NAME OF WORK: - **(**1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50 KM) (2) Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area. (Length:-2.10 KM) (3) Remaning Portion between villsges bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)

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MEMORANDUM

Notice:- Thetechnicalbidcoverwillbereceivedupto6.00p.m.on/ /2020 to/ /2020 by R.P.A.D/SPEEDPOST Onlyandwillbeopenedat SUDAnextworkingday

Sr. No.	General Descriptionofworks	:	**(1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50KM) (2) Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area. (Length:-2.10 KM)(3) Remaning Portion between villages bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)**
1.	EstimatedCost	:	**Rs. 94,86,853 Ps.50**
2.	EarnestMoneyDeposited	:	**Rs. 94,870.00 /-**
3.	Tenderfee	:	**Rs.2688 /-**
4.	Requiredregistrationclass	:	**"D"class**
5.	Time Limit	:	330 Days (11 Months)
6.	Onlinesubmission(Last Date)ofPricebid	:	**Up To / /2020Up To 18.00 p.m**
7	SubmissionofTechnicalBid, TenderFee, EMD and other documents etc. In hard copytoChief Executive Authority	:	**Onorbefore FromDate:10/01/2020 to 17/01/2020by Regd.postorSpeedPostonly.**
8	Security Deposit (i) Initial Security Deposit (ii) To be Deduced From R.A. Bill	:-	**2.5% of Amount Put to Tender** **2.5% of each and every Bill amount**
9	(iii) Performance bond		**5% of Amount Put to Tender**
10	Total Security Deposit	:-	**Rs. 10% of Amount Put to Tenderamount**
11.	TimeAllowed fortheCompletion ofcontract From date fixed in written order to commence	:	**As per given in important instruction to contractorpoint no13(Pageno.9)**
12.	Compensation for delayed work under Clause2...	:	**0.2%(ZeropointTwoPercent)of thetender valueof unexecutedworkperdayof delay subjectto maximum10%ofunexecutedwork amount.**
13.	Percentage to be retained from running account Bill	:	**AsperPayment condition**
14.	DefectLiabilityPeriod	:	**06(six)MonthsFromtheactualdateof completionofwork.**

ChiefExecutive Authority

Surat Urban Development Authority

Surat

SEAL&SIGNATURE OFTHE TENDERER:

SURAT URBANDEVELOPMENT AUTHORITY

TENDER NOTICE NO : SUDA/CB/15/ 2019-20

IMPORTANTINSTRUCTIONS TOTENDERERS

[1] NO DEVIATION IN TECHNICAL SPECIFICATION OR COMMERCIAL TERMS LIKE TERMS OF PAYMENT, COMPLETION PERIOD ETC. SHALL BE ALLOWED. SUCH DEVIATION (S), IF OFFERED WILL CAUSE THE REJECTION OF TENDER(S) OUTRIGHTLY.

[2] TENDERERS TO READ AND NOTE CAREFULLY:

[A] At his own expenses and prior to submitting his tender, each tenderer shall **(a)** examine the Contract Documents **(b)** visit the sites and determine local conditions which may affect the work including the prevailing wages and other pertinent cost factors **(c)** familiarize himself with all central, State and local laws, ordinance, rules, regulations and codes affecting the material supply including the cost of permits and licenses required for the work and **(d)** correlate his observations, investigations, and determinations with the requirement of the tender documents.

[B] The documents/ appendices/ annexure/ statements should be completed legibly in ink, checked in responsible manner, signed, stamped and returned together with the tender security Bond by the tenderer.

All the pages in which entries are required to be made by the tenderer are contained in the tender documents and the tenderer shall not take out or add to or amend the text of any of the documents or else the tender shall be rejected forfeiting the EMD.

[3] EARNEST MONEY DEPOSIT: -

(A) Each tender must be accompanied by a receipt of deposit as tender guarantee (Earnest money deposit) of the **amount mentioned in Memorandum**, in the form of crossed Demand Draft/Pay Order of Nationalized/Scheduled Bank acceptable to SUDAdrawn in favour of the "Chief Executive Authority, SURAT URBAN DEVELOPMENT AUTHORITY " payable at Surat. The tender bond shall be valid for a period of not less than Ninety (90) days from the date of the tenders are opened and shall comply with the requirements for Bond as stipulated in the general conditions of contract. The SUDAas a guarantee will hold the tender guarantee bond that the tenderer if awarded the contract, will enter in to the contract agreement in good faith and furnish the required bonds. Any tender not accompanied by a tender Guarantee in the form of earnest money deposit in the form of Bank Draft for the sum stipulated in the tender document will be summarily rejected.

(B) The earnest money deposit will be refunded to the unsuccessful tenderers after the award of work has been finalized.

(C) The earnest money deposit (tender guarantee) will be forfeited in the event, the successful tenderer fails to accept the contract and fails to submit the performance guarantee bond to the SUDAas stipulated in the tender documents within ten days after receipt of notice of award of contract. In such case SUDAmay disqualify the tenderer from tendering for further works, under the jurisdiction of the SUDA.

(D) The earnest money deposit of the successful tenderer shall be returned after the performance guarantee bond, as required, is furnished by the contractor.

(E) No interest shall be paid by the SUDA on any tender guarantee/performance guarantee.

(F) Bank guarantee or cheque or FDR shall not be accepted for EMD/ tender guarantee.

[4] SALES TAX/ VAT /GST REGISTRATION CERTIFICATES: -

Latest sales tax/ VAT /GST registration certificates must accompany the tender without which the tender is liable to be summarily rejected. The sales tax/VAT/GST registration number must be clearly specified.

[5] PREPARATION OF TENDER DOCUMENTS: -

Tenderers are requested to note the following while preparing the tender documents: -

(A) Tender shall be submitted as specified in these tender documents in English. All tender items and statements shall be properly filled in. Numbers shall be stated both in words and in figures where so indicated.

(B) Each tender shall be accompanied by the prescribed tender security bond and other required documents and drawings. All witnesses and sureties shall be persons of status and proximity and their full names, occupations and addresses shall be stated below their signatures. All signatures in the tender documents shall be dated.

(C) Delivery of tenders shall comply with notice inviting tenders as to place, date and time.

[6] SUBMISSION OF TENDER DOCUMENT: -

Bidders wishing to participate in this e-tender shall be required to procure Digital Certificate as per Information Technology Act- 2000. By using this Certificate the bidder can digitally sign his electronic bid. Bidders can procure the Digital Certificate from any of the CCA approved certifying agency or can contact M/s (n) Code Solution at the below mentioned address who will assist in procuring the same. Bidders who already have a valid Digital Certificate need not procure it again. In case bidders need any clarification regarding online participation they can contact:

M/ s (n) Code Solution,
301, GNFC Info Tower,
Near Grant Bhagwati Hotel,
Ahmedabad–380 015.
Tel: +91-79-26857316
Tel: +91-79-26857317
Tel: +91-79-26857318
URL: https:// suda.nprocure.com

Bidders who are willing to participate in e-tender need to fill data in pre-defined forms of Tender fee, EMD (Bid Security), Qualifying Criteria & Technical Bid and Price Bid only.

Bidders should upload scan copies of reference documents in support of their eligibility of the bid. After filling the data in pre-defined forms, bidders need to click on final submission link to submit their encrusted bid.

Bids shall be submitted as below: -

→ EMD along with proof of Qualifying Criteria in pre-defined forms in electronic mode & Physical form and other tender papers/ certificate.

→ Price Bid in electronic mode only in Price Schedule.

Note: Price bid in physical form (in hard copy) will not be accepted. DOCUMENTS COMPRISING THE BID TO BE SUBMITTED IN PHYSICAL FORM: -The bid submitted by the bidder in physical form in hard copy shall comprise the following:

a) Tender fee in form of DD or pay order in favour of "Chief Executive Authority, Surat Urban Development Authority" payable at any nationalized or Scheduled Bank situated at Surat.

b) Bid Security; (EMD) fee in form of DD or pay order in favour of "Chief Executive Authority, SURAT URBAN DEVELOPMENT AUTHORITY " payable at any nationalized or Scheduled Bank situated at Surat.

c) Qualification Documents like

1. Sales Tax/ VAT /GST registration certificate.
2. Service Tax/GST registration (If Applicable).
3. P.F. Registration.
4. Professional tax registration (EC/ RC) certificate
5. Partnership agreement, Joint venture agreement/ Authorisation letter(s), Whichever is applicable.
6. Relevant Class Registration in any department of the government namely PWD/ MES/ CPWD/ other state PWD/ SMC.
7. Valid Electrical Contractor licence
8. Solvency Certificate without which such tenders are liable to be rejected. The Solvency Certificate should be 20% of the estimate amount which shall not be Older than one year.
9. A list of all Luminaire Supply orders executed by LED manufacturing company with satisfactory work completion certificate.
10. Certificate showing financial turnover of last three years.
11. A list of all completed works must be furnished along with satisfactory work completion certificates/ work orders. {Work completed other than SUDA work completion/Satisfactory certificates should be notarised)
12. All technical/ general specifications and drawings, catalogues/ literature of equipment being offered and all the test certificates for LED luminaries as pertender specifications/ terms.

13. All the documents required as per the check list/ attached annexure with the Tender.

Thedirect **or indirect mention regarding cost in technical-bid Shall not beallowed**

14.**All documents/ details etc. mentioned above& other than above has to be Submitted as per Check List. Appropriate document(s)/ details required Should be furnished without which tender shall not be considered and Price-bid of such bidder will not be opened.**

The documents shall be submitted in **one set** in the following manner: -

(i) Set of document shall be put in a **separate sealed cover. Name of the Work, tender Notice No.and full name and address of the bidder shall be written clearly onThe Sealed cover.**

(ii) The Bank Draft for EMD shall be put in a separate envelope subscribed as "'EMD" on top of the cover. Tender fee amount (DD) shall be put in the same cover.

The documents along with the envelope containing EMD shall be put inside one large Envelope, sealed and clearly super scribed on top of the packet name of the work & tender Notice no. Nameand full address of the bidder shall be written on the bottom left corner of Each envelope. Due date of Receiving the tender shall also be mentioned on the envelope. This cover must be super scribed as "Technical Bid Cover".

The hard copy as above should be sent to **The CHIEF EXECUTIVE AUTHORITY SURAT URBAN DEVELOPMENT AUTHORITY,SURAT – 395 007 by RPAD & Speed Post only**AsPer the dates mentioned in the tender notice. SUDA shall not be responsible for any Postal Delay.

DOWNLOADING OF TENDER DOCUMENT:-

The tender document for this work is available only in Electronic format, which can be downloaded free of cost by the bidder. Tender documents consist of two parts (i) technical bid with qualifying requirements (ii) Price bid.

INFORMATION FOR ON LINE PARTICIPATION

I. Internet site address for e-tender activities will be http://suda.nprocure.com

ii. Interested bidders can view detailed tender notice and download tender document from the above mentioned website.

iii. Bidders who wish to participate in online tender have to register with the website through the "New User Registration" link provided on the home page. Bidder will create login id & password on their own in registration process.

Tenders by partnership firm must be signed by all partners. The full name and addresses of all the partners shall be furnished. The tenders by Corporation/ Companies must be signed with the legal name of the Corporation/ Company by the president/ or by the secretary or other person or persons legally authorised to bind the Corporation/ Company in the matter.

Price bid is not to be submitted in physical form. Please note that non-submission of price bid does not absolve the bidders from any liability created from the bid conditions and bidding process. Technical bid in Hard copy shall be submitted bysuccessful bidder upon intimation fromSUDA afterwards.

[7] TENDER VALIDITY PERIOD: -

The validity period of the tender submitted for this work shall be of one hundred twenty (120) calendar days from the last date of submission of the price bid and that the tenderer shall not be allowed to withdraw or modify the tender offer on his own during the validity period. The tenderer will not be allowed to withdraw the tender or make any modifications or additions in the terms and conditions of his tender. If this is done then the SUDAshall, without prejudice to any right or remedy, be at liberty to reject the tender and forfeit the earnest money deposit in full.

[8] GENERAL PERFORMANCE DATA: -

Tenderers shall present all the information, which are sought for in the tender documents in the form of various schedules. Tenders may not be considered if left blank or the schedules are not properly filled in before submissions of the tender.

[9] SIGNING OF TENDER DOCUMENTS: -

If an individual makes the tender it shall be signed with his full name above his current address. If a proprietary firm makes the tender it shall be signed by the proprietor above his name and the name of his firm with his current address.

If the tender is made by a partnership firm it shall be signed by all the partners of the firm above their full names and current addresses, or by a partner holding the power of attorney for the signing the tender in which case a certified copy of the power of attorney shall accompany the tender. A certified copy of the partnership deed, current addresses of all the partners of the firm shall also accompany the tender.

If the tender is made by a limited company or a limited corporation, it shall be signed by duly authorised persons holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the tender. Such limited company or SUDAmay be required to furnish satisfactory evidence of all its existence before the contract is awarded.

All witnesses and sureties shall be persons of status and proximity and their full names, occupations and addresses shall be stated below their signatures.

[10] WITHDRAWAL OF TENDERS: -

If,**during the tender validity period, the tenderer withdraws his tender, the tender security (earnest money) shall be forfeited and the tenderer may be disqualified from tendering for further works under the jurisdictions of the SURAT URBAN DEVELOPMENT AUTHORITY.**

[11] ERRORS AND DISCREPANCIES IN TENDERS: -

In case of conflict between the figures and words in the rates, the rates expressed in words shall prevail and will apply in such case(s). The contractors shall particularly note the unit on which the rates are based. In case the amount shown in the last column as worked out by the tenderer differ from that worked out from the quantity and the rates, the amount based on the rates will be taken as correct. No changes in units shall be allowed.

[12] TAXES AND DUTIES: -

Prices quoted must be inclusive of all taxes, VAT,GST, excise duty, levies, construction cess, incidental charges, packing forwarding, insurance, transportation, loading / unloading, packing forwarding, inspection/ testing charges by authorized representative of manufacturer for checking geniuses of the parts supplied, etc. **but excluding service tax/GST (if applicable) which will be reimbursed extra on actual on submission of necessary documents. Documentary proof shall clearly indicate that the service tax paid is for the work of SUDAonly, so that reimbursement of the same can be done**.

The SUDAwill not issue "C" or "D" form.

GST (GOODS & SERVICE TAX) has come in existence from 1st July, 2017. Contractor / Successful Bidder is bound to pay the amount of GST prescribed by the Govt. Of India as per the Terms of Contract agreed upon during the course of execution of this Contract.

During the course of execution of Contract, if there is any change in rate of GST (GOODS & SERVICE TAX) by the Government the same shall be reimbursed / recovered separately by SMC, subject to the submission of original Receipt / Proof for the amount actually remitted by the successful bidder / Contractor to the competent Authority along with a certificate from chartered Accountant of Contractor / Successful Bidder certifying that the amount of GST paid to the Government and the same shall be intimated / submitted / claimed within 30 (Thirty) Days from the sole responsibility of the Successful bidder / Contractor, failing which, SUDA may recover the amount due, from any other payable dues with SUDA. Further the non-payment of the GST to the Government may lead to the termination of contract and forfeiture of Security Deposit / Performance Guarantee Amount.

If any other new taxes / Duties / Levies / Cess or any other incidentals etc. Are imposed or any increase in the existing Taxes / Duties / Levies / Cess or any other incidental etc. (Excluding GST) are imposed during the course of the contract, the same shall be borne by Contractor / successful Bidder only, in no case SUDA shall be liable for the same and obliged to reimbursed and no dispute regarding same shall be entertained by SUDA.

The Contractor shall be liable to the payment of all the Central/ State/ Local Body's Levies, taxes or duties etc. The SUDA shall neither bear it nor reimburse at any time but will ensurededuction of Central/ State/ Local levies and taxes at Source at the rate provided under the relevant statutes from time to time in force. Further the work contract tax or sale tax shall be borne by the Contractor as per Rules and Regulations of Government.

As per government G.R. Building and other construction work welfare cess act-1966 labour and employment development G.R. No. CWA/ 2004/ 841/ M-3, Dt-30/ 01/ 2006 **contractorshall have to pay 1% cess on every bill amount**.

[13] TIME REQUIRED FOR COMPLETION FOR WORK:-

A) The each individual work of Supply, Erection, Testing & commissioning of new street Light Poles must be completed in all respect within stipulated time period as mentioned below.

Quantity	Completion period
Up to 15 poles at one place or scattered	45 days
16 to 30 poles	60 days
31 to 60 poles	75 days
61 to 100 poles	90 days
More than 100 poles	days

B) The work completion period shall start after 10 days from the date of work order.

C) The completion period shall be strictly as mentioned above excluding Monsoon.

D) The tenderer shall quote accordingly. Any deviation in completion period specified Above shall not be accepted and such tender shall not be considered.

E) In case of no site clearance time limit will be calculated considering the date on which Site clearance given.

[14] PRICES AND PAYMENTS: -

The tenderer must understand clearly that the prices quoted are for the total works and include **all costs due to materials, labour, equipment, supervisions, other services, royalties, works contract tax etc**. and to include all extras to cover the cost. No claim for additional payment beyond the prices quoted (except service tax/GST for maintenance contract only) will be entertained and the tenderer will not be entitled subsequently to make any claim on any ground.

[15] TERMS OF PAYMENTS: -

No payment shall be made in advance. The terms of payment shall be as under. The Municipal Corporation shall not under any circumstances relax the terms of payment and will not consider any alternative terms of payment. Tenderer should therefore in their own interest note this provision to avoid rejection of their tender.Payment shall be made as under: -

(A) Equipment Supply Item:-

1. **70%** of equipment(s) supply value shall be released after satisfactory Delivery/acceptance of material and after, submission of invoice on prorates Bases.
2. **25%** of equipment(s) supply value shall be released after satisfactory commissioning ofLED streetlight luminaries and after, submission of invoice on prorates bases.
3. Remaining **5%** of equipment(s) supply value after satisfactory completion of whole work in all respect as a final bill.

(B) Erection, Testing & Commissioning: -

1. **95%** of the value quoted against installation, testing & commissioning after satisfactory competition of erection testing, and commissioning of respective items/ equipment's and after, submission of the invoice on prorate bases.

2. Remaining **5%** of equipment(s) supply value after satisfactory completion of whole Work in all respect as a final bill.

Two percent **(2%)** shall be retained from every running bill as retention money and shall be released in Final Bill, after of satisfactorily completion of SETC work.

Security deposit shall be released after final takeover of the installation after expiry of defect liability period as well as satisfactory clearance from Audit department.

[16] OPENING OF TENDER DOCUMENTS:

The Technical Bid will be opened in the office of the competent authority, Surat Urban Development Authority, if possible on next working day of last date of receipt at 18.00 Hours.

- Technical bid cover containing Technical Bid documents & EMD will be opened first and relevant details will be read out.

[17] The price bid which is quoted online on web site https://www.nprocure.com or https://suda.nprocure.com will remain unopened till the technical bid of all tenderer are as per technically at par.

[18] EVALUATION OF TECHNICAL BID:-

The following evaluation process shall be followed for evaluation of tenders:

THE BIDDER CAN QUOTE TWO SAMPLES OF LED LUMINAIRES HAVING ONE AS PRIMARY & OTHER AS SECONDARY. ALL REQUIRED PROCESS OF FURNISHING DOCUMENTS, DETAILS, LITERATURE, CERTIFICATES, SAMPLE(S) ETC. SHALL BE APPLICABLE FOR SECONDARY OPTION ALSO. POWER LOADING SHALL BE APPLICABLE FOR VALID MODEL(S). NO PRICE ESCALATION IN EVENT OF BETTER QUALITY LED LUMINAIRE SHALL BE GIVEN. SUBMIT ANNEXURE-II, FOR BOTH SAMPLES. IF DURING TECHNICAL BID EVALUTION PRIMARY FITTING FAILS TO FULFILL REQUIRED PARAMETERS/ DETAILS/ DOCUMENTS THAN SECONDARY FITTING SHALL BE CONSIDERED FOR FURTHER EVALUTION. AFTER THAT, IF SECONDARY FITTING ALSO FAILS TO FULFILL REQUIRED PARAMETERS/ DETAILS/DOCUMENTS THAN TENDERER SHALL BE DISQUALIFIED.

After opening of the technical bid, SUDA will examine the technical bid thoroughly. **The bidder must fulfil all eligibility criteria**.

Offered input less than mentioned in **Luminaire Datasheet** in detailed specifications shall not be considered for power loading (advantage). Offered Input shall be considered @ 230 v, A.C., 50 Hz

Power loading shall be applied for more than input mentioned in **Luminaire Datasheet** in detailed specifications. The base input power should be considered max. Of mentioned in test certificate and quoted by the bidder. Power loading will be **Rs. 1,57,000.00 per kW.** Lowest offer shall be considered

based on Quoted Cost (including all kinds of taxes/ duties etc.) + Power Loading. primary sample of the luminaire will be considered for power loading after allotment of works if contractor fails to supply LED fittings for any item i.e. fitting fails during any testing, the secondary option will be considered, in that case recovery of energy loss will be done, if

second option fitting draws higher energy compared to state for primary option during initial tendering. The second fitting must also pass all testing criteria.

1. If the Bidder satisfies all the conditions of the Qualification Criteria and the Technical Specifications mentioned elsewhere in this tender, the Bidder will be short-listed for on-site testing of Lighting Design. In that case, Bidder shall have to make all arrangements for on-site testing through third party government/NABL approved laboratory in presence of representative of SUDAand approve that model/make of fitting offered/to be offered complies with tender parameters on or before Given Work Order with prior intimation to SUDAfrom contractor side. In case, Bidder fails to complete On-site testing within this period, Price-bid of the said bidder will not be opened.
2. Measurement shall be done as per European standard CIE 140-2000, Illumination level, Uniformity ratio and transverse uniformity must be achieved as mentioned in Table "Fixed & Performance Parameters":

Note: -

(1) 3% downward value shall be allowed for all calculated uniformity ratios i.e. min. value of Uniformity Ratio(s) x 97%. **No relaxation shall be given in this matter**. Hence, tenderer is requested to offer their luminaire option(s) accordingly.

(2) **Re-measurement of fitting shall be done on fair technical ground only once**. However, **all testing charges will be borne by the tenderer**. Contractor shall have to deposit Rs. 20000/-per fitting in advance as a testing charges. After completion of entire testing process, actual expenditure of testing will be calculated &contribution of each contractor will be calculated & it will be deducted from advance collected. Balance amount will be returned to contractor. If expenditure more than Rs. 20000/- per bidder then remaining amount shall be deposited within 7 days from the intimation. No dispute shall be entertained at later date.

Only one chance will be given to bidder. In event of non-achieving any of the performance parameter, his offer shall be rejected and price-bid will not be opened.

(3) Technically Approved Bidder: If the Lighting Design results of the on-site testing are found to Be in line with the required Lighting Design parameters and the test certificates are matching The requirement of the tender then the fitting shall be deemed to be Technically Approved.

(4) If guaranteed rated power input at fixed parameter is not achieved during the test at site. SUDAshall have right to reject the luminaries.

(5) It should be very clearly noted that performance parameter i.e. guaranteed rated power Input must be achieved according to the fixed parameters. No allowance shall be permitted to alter fixed parameters. No relaxation in this regard is permitted.

- **Power loading shall be calculated for streetlight system of 500 metre.** No power loading advantage shall be given to design having higher illumination level than required. Therefore, bidders are requested to provide optimum design parameters considering all aspects/ applicable testing condition(s).
- Selection of the offer shall be on the basis of total capital cost & power loading combined.

[19] Corrupt and Fraudulent Practices: -

a) The Employer (SUDA) requires that bidders/ contractors under this contract observethe highest standard of ethics during the procurement and execution of this contract. In pursuance of this policy, the Authority.

Defines, for the purpose of these provisions, the terms set forth below as follows: -

(i) 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; and

(ii) 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 prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.

(iii) Will reject a proposal for award of work if Employer determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.

(iv) Will declare a Bidder ineligible, either indefinitely or for a stated period of time, to be awarded a SUDA contract/contracts if he at any time determines that the Bidder has engaged in corrupt or fraudulent practices in competing for, or in executing, the contract.

b) The Employer will reject a proposal for award if he determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question. The Employer will declare the firm ineligible, either indefinitely or for a stated period of time, to be awarded a contract by Surat Urban Development Authority if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contract, or during execution.

[20] OPENING OF PRICE-BID:-

The tenderers whose technical-bid is found as per terms and conditions and performance parameters as per tender terms & conditions may be allowed opening of the price-bid. The

successful tenderers of technical bid, who choose to remain present may attend price bid opening and price break-up will be readout at that time.

The competentauthority of SUDAreserves the right to open/ seal/ accept/ reject any tender without assigning any reasons thereof.

Price Bids of Tenderers, who do not meet the technical requirements of the tender, will not be opened.

[21] EVALUATION OF OFFER:-

Evaluation of offer shall be done on the basis of total price of quoted for the work plus applicable power loading as mentioned in the tender.

[22] Acceptance of tender will rest with the competent authority who does not bind himself to accept the lowest and reserves the right to reject any or all tenders and no reasons will be given for acceptance or rejection thereof. The tenderers whose tender is accepted will have to enter into a regular contract and to abide by all rules and regulations embodied in the tender.

Executive Engineer
Surat Urban Development Authority
Surat

SEAL&SIGNATUREOFTHETENDERER: -

TENDER NOTICE NO : SUDA/CB/15/ 2019-20

CONTRACTOR'SBIDDER'SUNDERTAKING CERTIFICATE

NAME OFWORK: (1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50 KM) (2) Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area. (Length:-2.10 KM)(3) Remaning portion between villsges bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)

1) I/we hereby declare that I/We have persuaded in detail and examined closely TheSpecifications/ general terms & conditions/ special terms & conditions/ important instructions/notes described in the tender documents& addenda corrigendum(s) [if any]. I/We hereby agree to be bound by and comply with all such specifications/terms, conditions etc.

2) I/We also certify that I/We have gone through all tender specifications, understood the intent of tender and accordingly I/ we have designed the system before quoting my/ our rates.

3) I/We also confirm that my/our offer is strictly in line with the tender specifications, stipulations, terms and conditions etc. and understand that in the event of any deviations, technical or commercial, my/our price bid will not be opened.

4) I/We also confirm that power consumption along with the required parameters will be proven by test reports.

5) I/We have understand the tender specifications/ terms/ conditions/ all content of tender and particularly intent behind the content and bind my/ ourselves for same.

6) If any items/ conditions/ specifications/ scope of work is mentioned differently at more than one place(s) by chance, most stringent and appropriate decided by the department will apply & binding to the tenderer.

SIGNATUREANDTHESEALOFTENDERER: -

.....

QUALIFICATION CRITERIA

The qualification process will lay high emphasis on the ability and competency of contractors to do high quality work within the given time schedule. The following criteria along with other conditions/ criteria shall be applicable to Bidder.

1. Average annual financial turnover of Bidder during the last 3 years, ending 31st March of The previous financial year should be at least 30% of Rs. 94.86 lacs.

2. Experience of having successfully completed similar works during last 7 years ending last day of month previous to the one in which applications are invited should be either of the following ("similar work" signifies Streetlight Capital work):-

   a) Three similar completed works, costing not less than the amount equal to 40% ofRs. 94.86 lacs

   OR

   b) Two similar completed works, costing not less than the amount equal to 50 % of Rs. 94.86 lacs

   OR

   c) One similar completed works, costing not less than the amount equal to 80 % of Rs. 94.86 lacs

3. Bidder must have registered for relevant class (mentioned in memorandum) registration in Gujarat PWD/MES/CPWD/ANY OTHER STATE PWD/SMC/other local government authorities are eligible to quote for this tender.

4. The contractor shall also be required to produce solvency certificate of minimum 20% amount of the total tender value which not older than one year.

5. Bidder should possess authorisation & Technical support letter from LED manufacturing co. to quote their particular model. The offered LED streetlight luminaries must have passed IES LM79/IS 16106-2012, IES LM 80/IS 16105-2012 from UL/ ERTL/third party NABL accredited laboratory only and attested copies of the test certificates must be attached.

6. The permit holder persons must be employed for the job. The SUDAwill not be Responsiblefor any accident or injury to the workman/ staff of the contractor. No compensation of any kind shall be paid by the SUDA. The contractor shall observe latest Government rules regarding labours etc.

7. The firm should possess adequately qualified electrical personnel required for the proposed work.Presently, if party is not in possession, the clear confirmation to arrange such staff/facilities in the event of award of contract must be furnished.

8. The firm must possess valid electrical contractor's license issued by Government of Gujarat.

9. The firm should have full flagged office withtechnical personals. He should clearly state the arrangement of staff available with them in separate sheet.Relevant sheet must be clearly filled in.

10. Bidder has to offer primarily one model/ one manufacturer for which bidder thinks is best and as per tender specifications, terms & conditions. Authorization certificate of LED Chip and Luminare manufacturer must be attached for model/ manufacturer. Having upon the evaluation technically and otherwise if it is failed because of anyreason whatsoever except it is proved that fake certificate(s) is (are) attached, bidder can be allowed for subsequent max. two other models/ manufacturers.In any case min. power consumption (input power to luminary) will be fixed as quoted for primary option. In subsequent models, actual power consumption will be taken which will not be considered lower than what is quoted for primary option.

Contractor has to furnish all details/ documents as mentioned above for the secondary option(s) also. Authorization letter for finally selected luminary in case of secondary option can be submitted at later date before opening of price-bid.

11. All certificates/ evidences should be duly attested/ certified by Notary. All work details should be provided with attested copies of evidences.

Note :-Following enhancement factors will be used for the cost of works executed and financial figures to common base for the value of the works completed in India

FinancialYear	Multiplyingfactor
One(2019-20)	1.10
Two(2018-19)	1.21
Three(2017-18)	1.33
Four(2016-17)	1.46
Five (2015-16)	1.61
Six(2014-15)	1.77
Seven(2013-14)	1.95

Executive Engineer
Surat Urban Development authority
Surat

SEAL&SIGNATUREOFTHETENDERER:

E- TENDER NOTICE NO : SUDA/CB/15/ 2019-2020

SCOPEOFWORK

1. Tenders are invited for the work of Supply, Erection, Testing and Commissioning of Street LightSystem.

2. All the material/equipment must be supplied with manufacturer's test certificates if asked by SUDA.

3. The material shall be got tested / inspected for all tests at manufacturer's works in presence of SUDA'S representative/Third Party Inspector appointed by SUDAbefore supply, as mentioned elsewhere in tender. The supplier/contractor must make all the arrangement for testing/inspection of equipment at manufacturer's works without any extra cost to the SUDA. 15 days clear prior notice should be given for testing/inspection. If at any time even after erection/commissioning, SUDAdesires testing at any government recognised laboratory for any item utilised by contractor, the same shall be arranged by contractor, testing charges shall be paid by CONTRACTOR,provided that the testing results are found satisfactory.

4. Tenderer must make his own arrangement for watch and ward of material supplied till it is commissioned satisfactorily at site and handed over to the SUDA. SUDAwill not be responsible for theft of materials till it is commissioned satisfactorily and handed over to the SUDAeven if part payment is released.

5. During defect liability period (06 months from the date of satisfactory commissioning),contractor must replace/ repair all equipment/ components & accessories for bad workmanship, manufacturing defects, installation/ commissioning errors or factors, which are beyond the control of O & M contractor. The tenderer must attend the fault immediately on receipt of intimation in case of breakdown of LED luminaire. During defect liability period, no fitting shall remain out of service **for more than 48 hours** after intimation; otherwise, penalty at the rate of **Rs. 20.00 per day** will be charged and recovered from performance guarantee or any other outstanding payment. The period for penalty shall be counted from the time of verification that defects due to LED luminaire.

   However, if more than five streetlight fittings on a particular street/ road remains "off" on any account this 7 days' limit mentioned above will not be applicable. Contractor should rectify/ repair the same immediately; otherwise the same shall be got repaired/ rectified through other agency/ contractor at the risk and cost of the contractor.

6. The Contractor shall quote the rate in on line "price schedule" only. No alterations in form of tender and in "price schedule" and no additions in the shape of special stipulation will be permitted. Tender/tenders, who do not fulfil all or any of the above conditions or are incomplete in any respect, are liable to be rejected.

7. **The contractor should offer the rates in on line price schedule only. The works of SETC of new street light system mentioned in tender shall be allocated to lowest tenderer as per capability or as per decision of competent authority of the SUDAand the competency (financial & experience) of tenderer. The lowest tender rates shall be considered and fixed as the unit rate, if found**

reasonable. All contractors should note the same and participate/ offer the self supporting rates accordingly. The SUDAshall execute the work for the individual items as per requirement. The TENDER GUARANTEE paid against this tender shall be retained till submission of performance guarantee on award of contract. For future works separate TENDER GUARANTEE shall be deposited while giving consent for carrying out the work as per fixed/sanctioned unit rates, which shall be retained till submission of performance guarantee on award of contract.

The earnest money deposit will be forfeited in the event, the successful contractor denies to accept the contract and fails to submit the performance guarantee bond to the SUDAas stipulated in the tender documents within ten days after receipt of notice of award of contract.

The bidder is required to understand clearly the purpose of these tender, which are as bellow. To execute the Job at various site within SUDALimit.

1. **Consider the rates of all items (Including various items with zero quantity in this price schedule) as PERCENTAGE RATE for all similar type of Job/Items required to be executed in future till further revision of rates.**
2. **These PERCENTAGE rate, so fixed does not entitle the bidder/bidders to get future job automatically.**
3. **The separate procedure to seek consent/undertaking from various contractors/bidders to execute the future works as per the fixed PERCENTAGE rates and award the work to any specific contractor as per decision of competent authority as per SUDAnorms shall be followed.**

8. For any Extra item required to be executed and not mentioned in the tender, payment for that item(s)shall be made as per the S.O.R. 2012-13 or SMC rate

9.Once the PERCENTAGE rates are fixed, for future requirement of various sites/works of SURAT URBAN DEVELOPMENT AUTHORITY , Relevant class of registration for different works as per the Work Amount shall be considered while allotting the works as per fixed/sanctioned PERCENTAGE rate. However decision of competent authority of the SUDAwill be final in this case.

10.Acceptance of tender will rest with competent authority who does not bind himself to accept the lowest tender and reserves the right to split the work among tenderers, reject any or all tenders and no reasons will be given for acceptance or rejection thereof. The tenders whose tender is accepted will have to enter into a regular contract and abides by all rules and regulations embodied in the tender.

11.All equipment/material/accessories are to be supplied by contractor and to be erected by contractor.No tools-tackles/ machinery/manpower will be provided by the SUDA. In case the rate in word differs from that in figures, the former will be taken as correct. No change in units shall be allowed.

12.Entire lighting scheme with installation methodology shall have to be got approved before commencement of actual work on site.

13.Site visit is required. Work allotted within SUDA area only, road width, pole arrangement is mentioned in the tender. No. dispute at later stage shall be entertained.

14. AFTER SITE VISIT TENDERER QUATE BYBACK OFFER RATE OF EXISTING STREET LIGHT SYSTEM.

Executive Engineer
Surat Urban Development Authority
Surat

SEAL&SIGNATURE OFTHETENDERER:

E- TENDER NOTICE NO : SUDA/CB// 2019-20

DETAILED SPECIFICATION

ITEMNO.1

Supply,erection, testing and commissioningof

(a) 6 m height octagonal pole (GI):

The Octagonal Poles shall be designed to withstand the maximum wind speed of 159 km/ hour. The maximum stress at wind speed of 159 km/ hour shall not exceed 80% of the strength of steel. The detail of top loading i.e. the weight and area of top luminaries are worked out based on this consideration. Maximum deflection of the pole shall meet the requirement of BS 5649: part 6 1982. The pole shall be hot dip galvanized as per IS 2629/IS 2633/IS 4759standards with minimum coating thickness of 85 microns considering operating conditions of the city.

The pole shaft shall have Octagonal cross section and shall be continuously tapered with single longitudinal welding. There shall not be any circumferential welding. The welding of pole shaft shall be done by Submerged Arc Welding process using state of the art know how.

All Octagonal Pole shafts shall be provided with the rigid Flange plate of suitable thickness with provision for fixing four bolts. This base plate shall be fillet welded to pole shaft at two locationsi.e. from inside and outside. **Door height should be 500 mm above from the bottom of the Pole and door opening should be hinged type with necessary special locking bolt. Suitable plate shall be provided for cable gland support.** Pole drawing from manufacturer must be get approved from concerned department.

The detail dimensions are follows: -

Height Of Pole	O.D. TOP (Min.)	O.D. BOTTOM (Min.)	THICKNE SS (Min.)	BASEPLATE(Min.)	Bolt Details	Length of JBolt	Sizeof Foundation
6m	70 mm	135 mm	3mm	225 x 225 x 12 mm	4-M16	600 mm	500X 500X 1600
7m	70 mm	135 mm	3mm	225 x 225 x 16 mm	4-M20	600 mm	500X 500X 1600
8m	70 mm	135 mm	3mm	250 x 250 x 16 mm	4-M20	750 mm	500X 500X 1700
9m	70 mm	155 mm	3mm	260 x 260 x 16 mm	4-M24	750 mm	500X 500X 1700
10 m	70 mm	175 mm	3mm	275 x 275 x 16 mm	4-M24	850 mm	500X 500X 2200
11 m	90 mm	190 mm	3mm	300 x 300 x 20 mm	4-M24	850 mm	500X 500X 2200

The pole shall be adequately strengthened at the location of the door to complete for the loss in section.

MATERIAL

Octagonal Poles : Steel confirming to ASTM A 572/ BSEN 10025 grade
Foundation Bolts : As per relevant IS Base
Base Plate : IS 226/IS 2062 steel

The steel used to manufacture steel poles is as per ASTM A 572/BSEN 10025 grade S355 Yield StrengthMin. 355N/mm2 and Tensile strength 490 - 630 N/mm2.

Please note that among the various standards mentioned, most stringentwill apply.

Door Opening:-

An adequate door opening shall be provided at the base of the pole and the opening shall be such that it permits clear access to equipment like termination plate, MCB, cables, etc. The door opening shall be complete with a close fitting, vandal resistant, weather proof **hinged type** with mechanical internal lock with special paddle key.

The door shall have required width-having height of minimum 250mm at the elevation of 1500 mm from the Base Plate. The door shall be vandal resistance and shall be dust proof to ensure safety of inside connections.

The door shall be flush with exterior surface and shall have suitable locking arrangement.

The door opening shall be carefully designed and reinforced welded steel rod, so that undue buckling of the cut section under heavy wind conditions.

In case, Quantity of poles is more than or equal to 10 nos., The Poles must be got tested/ inspected for all tests at manufacturer's works in presence of corporation's representative before supply. The supplier must make all the arrangement for testing/inspection at manufacturer's works without any extra cost to the corporation.7days clear prior notice should be given for testing/inspection.All the material/equipment/accessories must confirm to the relevant IS with its latest amendments. If quantity is less than 10 nos., supplier will have to submit internal test reports of pole.

All thematerial/equipment/accessories must be supplied with manufacturer's test certificates.Product manual & spare parts list along with drawing of Pole & Bracket must be submitted along with offer for each product quoted.

ITEMNO. 2

Supply,erection, testing and commissioningof

(a) 8 m height octagonal pole (GI):

Detailed Specification remain same as per above Item No.01.

ITEMNO.3

Supply,erection and commissioning ofdetachable bracketsof

(a) Single arm1.0 x 1.0

Structure:-

single/ double/triple arm streetlight pole detachable bracket consisting of "B" class G.I Pipe of 4.2 cms O.D., having spread of 0.5 m & 6.0 cms O.D. GI Pipe & 2.9 W.T with horizontal spreading of0.75/1.0/1.25/1.5/1.75/2.0 m shall be provided. The bracket shall be hot dip galvanized as per IS 2629/IS2633/IS 4759 standards with minimum coating thickness of 85 micron. Bracket will be detachable with necessary reducer to the top of octagonal telescopic pole.**The bracket should have aesthetic look. The tenderer may change spread and tilt within prescribed limit, if required, to achieve the desired lux level. The bracket design shall be got approved before supply. The bracket shall be aesthetically good and decorative. Various designs shall be submitted to the SUDAafter award of the contract.**The bracket(s) design approved by SUDAshall be installed on street light at site. Cap size of bracket should be min. 0.3 m, Bracket Height should not be more than 0.3 m above cap and bracket arm length should not be more than 2 m. In case of bracket height more than 0.3 then cap size must be greater or equal to bracket height over the cap.

ITEMNO.4

Supply,erection and commissioning ofdetachable bracketsof

(a) Doublearm 1.0 x 1.0

Detailed Specification remain same as per above Item No.03.

ITEMNO.5

Supply,erection and commissioning ofdetachable bracketsof

(a) Triplearm 1.0x 1.0

Detailed Specification remain same as per above Item No.03.

ITEMNO. 6

Providing and constructing Reinforced Cement Concrete Foundation for Octagonal poles having following height:

(a) 6 m height octagonal pole (GI):

Reinforcement cement concrete foundation having Grade M20 along with necessary Foundation Bolt, Nuts, Washers with anchor plate and DWC pipe for cable access etc. shall be casted having size as shown in table at item no. 1 or recommended by Octagonal pole manufacturer, minimum depth as shown in table at item no. 1 or appropriate with necessary plastering and lime wash. Foundation should be madein such a way as site requirement. This section should be finished in decorative manner as directed by Engineer-in-charge. The item includes excavation, necessary reinforcement recommended by Octagonal pole manufacturing co,

Shuttering and M20 grade rcc from preferably RMC plant or mixture of 1:1.5:3 M20 grade RCC. The Contractor should make necessary arrangement for curing required for the works at his own cost. The site should be cleaned or excess material should be removed after the work is completed. While making foundation, best civil engineering practice(s) must be exercised. Bidder must take approval of foundation drawing before carrying of work.

ITEMNO. 7

Providing and constructing Reinforced Cement Concrete Foundation for Octagonal poles having following height:

(a) 8 m height octagonal pole (GI):

Detailed Specification remain same as per above Item No.06.

ITEM NO.8

Providing and Makingcable termination:

(a) Single arm 4Cx 16/25sq mm

(b) Doublearm4C x16/25sq mm

The item includes supply, erection, testing and commissioning of end termination at the integral junction boxes or wherever required using Bakelite sheet with one or two nos. 6 Amp MCB & Heavy duty stud type connector. The item includes supply of solder less crimping Aluminium lugs suitable for cable. The cable shall be terminated at connector in terminal box or wherever required using ISI Marked PVC 1.1KV grade insulating tape roll with appropriate colour code.

ITEM NO. 9

Detailed Specification remain same as per above Item No.08.

ITEM NO. 10

Detailed Specification remain same as per above Item No.08.

ITEMNO.11

Supply, laying, testing and commissioning of armoured cable through DWC pipe/GI Pipe/Pole:

(a)4C x16mm^2

The cable shall be stranded Al. conductor, Cross Linked Polyethylene Insulated PVC sheathed, galvanized strip armour 1100 V grade confirming to relevant I. S. (IS: 7098 Part I) specification bearingI. S. I. mark.

Sr. No.	Detail	6 (a) 4C x 10 mm	6 (b) 4C x 16 mm	6(c)4C x 25mm^2
1	TypeofCable	A2XWY	A2XFY	A2XFY
2	Voltage Grade	1100Volts	1100Volts	1100Volts
3	ApplicableStandard	IS:7098PartI	IS:7098PartI	IS:7098PartI
4	CableSize	4Cx10mm2	4Cx16mm2	4Cx25mm2
5	CONDUCTOR			
	a.Material	StrandedAluminium	StrandedAluminium	StrandedAluminium
	b.NominalCrosssection area(mm2.)	10	16	25
	c.Max. D.C.Resistanceat 20degreeC.(Ohm/Km)	3.08ohm/kmmax.	1.91ohm/kmmax.	1.20ohm/kmmax.
6	INSULATION			
	a.Material	CrossLinked Polyethylene	CrossLinked Polyethylene	CrossLinked Polyethylene
	b.NominalThickness(mm)	Avg.minimum0.70 mm	Avg.minimum0.70 mm	Avg.minimum0.90 mm
	CoreIdentification	AsperCl.no10.1 ofIS 7098(part:1)	AsperCl.no10.1 ofIS 7098(part:1)	AsperCl.no10.1 ofIS 7098(part:1)
7	INNER SHEATH			
	a.Material	AsperCl.no5.2of IS7098(part :1)	AsperCl.no5.2of IS7098(part :1)	AsperCl.no5.2of IS7098(part :1)
	b.MinimumThickness (mm)	Minimum 0.3mm	Minimum 0.3mm	Minimum 0.3mm
8	ARMOUR			
	a.Material	RoundWire	StripArmour	StripArmour
	b.SizeofArmour	AsperISstandard	Asper ISstandard	AsperISstandard
9	OUTER SHEATH			
	a.Material	PolyvinylChloride compound	PolyvinylChloride compound	PolyvinylChloride compound
	b.NominalThickness(mm)	AsperIS	AsperIS	AsperIS
	c.Identification	Manufacturer'sName,Trademark, Voltagegrade andwords Electriccableandmetermarkshowingmeasurementof cable& shallembossed/printed/indicatedat each 1 meter throughout the lengthofcable		
10	Approximateoverall diameter (mm)	AsperIS	AsperIS	AsperIS
11	Max.Conductor temperature duringshort circuit	AsperIS	AsperIS	AsperIS
12	Max.Short circuitcurrent for 1sec.	AsperIS	AsperIS	AsperIS
13	Max.Conductor temperature duringshort circuit	AsperIS	AsperIS	AsperIS
14	Continuouscurrentrating forSTD.in conditionlaid direct			
	Inground	AsperIS	AsperIS	AsperIS
	Inair	AsperIS	AsperIS	AsperIS
15	Test	IS: 7098 PartI(AllacceptanceTests)		

The cable laying procedure should be as per IS and National Electrical code of practice. Any damage to other services during excavation, cable laying or refilling work shall be solely on the Contractor's account. The following factors should be considered while laying the cable.

I Before laying, the insulation of the cable should be checked with manger in presence of representative of SUDAas a preliminary check against any probable damage.

II. Manufacturer's test certificate must be furnished for cable of concerned work. If the quantity of cable is more/equal than standard packing drum, the cable must be got tested at manufacturer's works for all routine tests as well as acceptance tests presence of SURAT URBAN DEVELOPMENT AUTHORITY 's representatives/Third Party Inspector appointed by SUDAbefore supply. The contractor must make all the arrangement for testing at manufacturer's works without any extra cost to the corporation.15 days clear prior notice should given for testing. If the quantity of cable required in particular work is less than standard packing drum length contractor is permitted to use the cable from tested cable drum only. However tenderer shall use the loos cable from standard packing drum for more than one work.

III. If SUDAdesires the cable testing at ERDA/any other government recognised laboratory the same shall be arranged by the contractor. Testing charges shall be paid by SUDAif the testing results are found satisfactory, otherwise necessary expenses towards testing of cable will be born by contractor.

IV. Cable length marking at interval of one meter length shall also be embossedPrinted/indicatedinfigures.

ITEMNO. 12

Supply, laying, testing and commissioning of armoured cable through DWC pipe/GI Pipe/Pole:

(a) 4C x 25mm^2

Detailed Specification remain same as per above Item No.11.

ITEMNO. 13

Detailed Specification remain same as per above Item No.08.

ITEMNO.14

Layingof DWCpipe includingexcavation&backfilling:

(a) SoftSoil/KachhaRoad

Supply & laying of 50 mm dia. Double Walled Corrugated (DWC) Pipe of HDPE similar to "TELEREX" make with necessary socket/ coupling size 63 mm OD/ 50 mm ID, confirming to IS 14930 part-II with necessary connecting accessories of same material for laying/passing of cable through DWC pipe. The rate should include excavation of ground/tar road and refilling of trench having depth of 90 CM or as per site requirement. DWC pipe must be laid first. Cable drawing work must be carried out after completion of backfilling.

Any damage to any of the services during excavation & refilling shall be to the contractor'saccount. The work shall be carried out to the satisfaction of Engineer- in-charge. Refilling work of the trench should be carried out after final supervision of the representative of the suda. After completion of DWC pipe laying, trench should be refilled and ground should be levelled including watering etc. The site should be cleaned of excess material/debris after the work is completed, without any extra cost.

ITEMNO.15
Supply and laying ofGI "B"gradepipe having following dia. meter for cable guard

(a)40mmDia

(b)50mmDia

The item includes Supply & laying of GI "B" grade pipe (ISI Marked) for laying/passing of cable through GI pipe. The rate should include making Zari up to the depth of 6" to 8" and refilling. Any damage to any of the services during excavation & refilling shall be to the contractor's account. The work shall be carried out to the satisfaction of Engineer- in-charge. Refilling work of the trench should be carried out after final supervision of the representative of the corporation. After completion of GI pipe laying, trench should be refilled and ground should be levelled including watering etc. The site should be cleaned of excess material/debris after the work is completed, without any extra cost.

ITEMNO.16

Layingof DWCpipe includingexcavation&backfilling:
Making trench in hard Murrum/ Tar Road of suitable width of 90cms or required depth for laying any size of cable locating the fault all over the run and back filling the same and making the surface as normal as hard murrum/ tar road.(B) if additional machineries like hammer driller or JCB use

Supply & laying of 50 mm dia. Double Walled Corrugated (DWC) Pipe of HDPE similar to "TELEREX" make with necessary socket/ coupling size 63 mm OD/ 50 mm ID, confirming to IS 14930 part-II with necessary connecting accessories of same material for laying/passing of cable through DWC pipe. The rate should include excavation of ground/tar road and refilling of trench having depth of 90 CM or as per site requirement. DWC pipe must be laid first. Cable drawing work must be carried out after completion of backfilling.

Any damage to any of the services during excavation & refilling shall be to the contractor'saccount. The work shall be carried out to the satisfaction of Engineer- in-charge. Refilling work of the trench should be carried out after final supervision of the representative of the suda. After completion of DWC pipe laying, trench should be refilled and ground should be levelled including watering etc. The site should be cleaned of excess material/debris after the work is completed, without any extra cost.

ITEMNO.17

Supply,laying, testingandcommissioning ofunarmoured cable:

(a) 3CX1.5Sq.mm

The item includes supply, laying, testing and commissioning of round 3C X 1.5/2.5 sq. mm for LED luminaries flexible unarmoured single PVC insulated copper conductor cable 1100 V grade to be laid through the pole from luminaries to junction box by experienced technician without any damage. The cable joint shall not be allowed.

ITEMNO.18

SETCofLED streetlightluminaries

- **Technical specificationforenergyefficientLEDbasedluminariesunitforstreetlight:-**

  This specification is for technical and general requirements design, development, manufacturing, testing and supply of energy efficient LED luminary complete with all accessories, LED lamps with suitable current control driver circuit and required optics including mounting arrangement for streetlight going to use at the site.

- **Codes & Standards: -**

  - IEC 60529 Classification of degree of protections provided by enclosures (IP Codes)
  - EN 55015, CISPR15 Limits and methods of measurement of radio disturbance characteristic of electrical lighting and similar equipment.
  - IEC 62031 LED modules for general lighting-Safety requirements
  - EN 61547 Equipment for general lighting purposes–EMC immunity requirement.
  - EN 60929 Performance, AC supplied electronics ballast for tubular fluorescent lamps performance requirement.
  - IEC 60598-2-1 Fixed general purpose luminaries
  - IEC 60598-1 Luminaries - General requirement and tests
  - IEC 61000-3-2 Electro Magnetic compatibility (EMC)- Limits for Harmonic current emission
    -– (equipment input current ≤ 16 A per phase).
  - IEC 60068-2-38 Environmental Testing: Test Z- AD: composite temperature/ humidity cyclic test
  - IEC 61347-2-13 Lamp control gear: particular requirements for DC or AC supplied electronic control gear for LED modules.
  - IS 10322 Specification for the luminaries
  - IS 4905 Method for random sampling
  - LM 79/IS 16106-2012 LED luminary photometry measurement.
  - LM80/IS16105-2012 Lumen Maintenance
  - IEC 62384 DC or AC supplied electronic control gear for LED modules performance requirements
  - IEC/ PAS 62612 Self-ballasted LED lamps for general lighting services- Performance requirements
  - RoHS (Reduction of Hazardous Substances)

- **Environmental conditions: -**

  The LED streetlight is to be used at the in city of Surat. It is located in Southern part of Gujarat. It is well connected with rails & roads, situated on Mumbai Ahmedabad Railway and nearby road isNH # 8. The average atmosphere conditions during the year are mentioned below. The equipment shall be designed to work in such environmental conditions:

  (i) Maximum ambient air temperature: **50° C**

  (ii) Minimum ambient air temperature: **10° C**

  (iii) Max. Relative humidity: **90%**

  (iv) Average Rainfall: **55 inches**

(v) Atmosphere**: Dusty and Heavy chemical smoke at times in certain areas**.

(vi) Coastal area: The equipment shall be designed to work in coastal area in humid, salt laden and corrosive atmosphere.

❖ **Luminary selection criteria: - Fixedparameters: -**

Luminaries shall be designed for parameters to achieve above performance parameters including Rated Input Power as per table/ sheet named "FIXED & PERFORMANCE PARAMETERS". Performance parameter and fixed parameters as per above mentioned table shall be proved duringon site testing.

Table#4: GENERAL DATA SHEET

Sr. No	Parameter	Value/DetailasperTender Specification	Value/DetailofferedbyLED Manufacturer
(1)	RatedSupplyVoltage	230 V ~,50Hz	
(2)	Input supply voltage range	140-270V	
(3)	Expected InputFrequency	50 Hz +/ - 3%	
(4)	WorkingTemperature	+5°to+50°C	
(5)	WorkingHumidity	10% - 90% RH	
(6)	Usage hours	Dusktodawn	
(7)	PowerFactor	≥0.90	
(8)	IndexofProtectionLevel	Minimum IP 65 as per IEC60529.	
(9)	LED chip efficacy(LED Manufacturer shall submit theproof)	135 lm/ W (min.)	
(10)	Junction Temperature (LEDManufacturer shall submit theproof)	≤ 85° C	
(11)	Driver Efficiency (LuminaryManufacturer shall submittheproof)	≥ 85%	
(12)	RatedLife@L70(Asper LM80/IS16105-2012)	50,000burninghoursat35°C ambienttemperature	
(13)	Nominal Correlated ColourTemperature	5,000° K to 6,000° K	
(14)	DispersionAngle	Minimum120°	
(15)	Tiltingangle	Adjustable	
(16)	Overall Light Loss Factor	0.70	
(17)	ColourRenderingIndex	70 (Min.)	
(18)	Total HarmonicDistortion	≤15%(EMI/EMCCertification)	
(19)	LEDMAKE	Cree/Osram/Nichia/PhilipsLumileds	
(20)	Surge Protection	10 kV	

Power(Price) loading: -

Power(Price)loadingshallbecalculatedbasedon followings:-

1. Rated power input of LED streetlight luminary shall be guaranteed performance figure.Luminaries shall be designed according to "Fixed & Performance" parameters

mentioned elsewhere in the tender to achieve Guaranteed Rated Input Power.

2. Evaluation of the prices quoted by tenderers will be done on capital as well as energy cost for 10 yrs@ Rs.159000.00 per KW.

Illumination Level:

The detailed calculation with uniform distribution including the lux distribution curve/ graph/ spatial distribution shall be submitted in support of the dimensions selected and variation thereof. The luminary shall be so designed that the illumination level shall be evenly distributed and shall be free from glare.

Constructional features:

General:

a)Luminare shall be made of die cast aluminium/ extruded Aluminium body with powder coated finish having safety.

b) Heat sink used should be aluminium extrusion having high conductivity. Heat sink should be integrated within luminare and efforts shall be made to keep the overall outer dimensions optimum such that it permits sufficient heat dissipation through the body itself so as to prevent abnormal temperature inside the luminare and consequential damage to cover, gasket material, LEDs, lenses and drivers.

c) LED must be mounted on Metal core PCB with suitable large area surface by means of fins to dissipate the conduct heat. The fins must be exposed to ambient flowing air.

d) All luminaries shall be provided with toughened glass of min. 0.8 mm thickness ofsufficientstrength. UV stabilised Poly carbonate material is also acceptable. High efficiency prismatic diffuser/Lens under the LED chamber to protect the LED and luminaries shall be provided.

e) The minimum IK protection of optic cover shall be IK 05. The test material certificate shall be provided.

f) Suitable number of LED lamps shall be used in the luminaries. The manufacturer shall submit the proof of procurement of LEDs from OEMs at the time of testing.

g) Suitable reflector/ lenses may also be provided to increase the illumination uniformity and distribution.

h) The electrical component of the LED and LED driver must be suitably enclosed in hermetically sealed unit.

i) The connecting wires used inside the luminary, shall be low smoke halogen free, fire retardant e - beam cable and fuse protection shall be provided in input side.

j) Design of the thermal management shall be done in such a way that it shall not affect the properties of the diffuser.

k) The equipment should be compliant to IEC 60598-1, IEC 62031 and IEC/PAS 62612 depending on the type of luminary.

l) The LED Module(s), Driver gear, etc. shall be designed in such a way so that temperature of heat sink shall not exceed 70° C.

m) All the material used in the luminary shall be halogen free and fire retardant confirming to standard.

n) Theinfrastructure for Quality Assurance facilities to verify/ test/ prove above specifications must be available at the manufacturing facility. The compliance shall be indicated clearly in the tender itself.

o) All fasteners must be of stainless steel.

p) All glands inside/ outside luminary must be metallic

q) Heat sink must be thermally connected to MCPCB/ LED light source.

High power and high lumen efficient LEDs suitable for following features shall be used:

a) The working life of the lamp at junction temperature of 85° C (max) at operating current shall be more than 50,000 working hours of accumulative operation and shall be suitable for continuous operation of 24 hours per day. These features shall be supported with datasheet.

b)Adequate heat sink with proper thermal management shall be provided.

c) Lumen maintenance report as per LM 80/IS 16105-2012 guidelines shall be produced for the power LEDs used.

d) Thermal management shall be in such a way that LED soldering point temperature shall not go beyond 75° C.

e) The LED luminaries shall be free of glare.

LED driver specification used for streetlight:

a) Current waveform should meet relevant nation and international standard.

b) LED Driver shall withstand, withstand voltage up to level mentioned elsewhere in tender and restore once normal working when normal voltage is applied.

c) The life of the driver should be more than 25000 Hours.

d) Maximum Temperature rise <= 30º C @ 45º C Tamb. with safety margin of 10º C.

e) The driver should comply to CISPR 15 for limits and methods of measurement of Radio Disturbance characteristics.

f)The equipment should comply to IEC 61547 for EMC immunity requirements

g)The control gear should be compliant to IEC 61347-2-13, IEC 62031 and IEC 62384 as per the requirements.

h) The driver of the luminaries should have Short Circuit, Over Voltage, Over Current, Over Temperature, Under Voltage, String Open protections. i)Minimum Driver efficiency should be 85%.

j) LED Driver shall be given in separate box and insulated in such a manner that leakage current should not be passed to fitting or pole.

k) LED Driver shall be given with proper earthing connection.

The electronic components used shall be as follows:-

a) The protective cum adhesive coating used on PCBs should be cleared and transparent and should not affect colour code of electronic components or the product code of the company.

b)The construction of PCBs and the assembly for components for PCBs should be as per ISstandards.

Penalty:-

1. If guaranteed rated power input at fixed parameter is not achieved during the test at site. Municipal SUDAshall have (1) the right to accept the luminaries& s hall have right to charge penalty for that or (2) also right to reject the luminaries.
2. It should be very clearly noted that performance parameter i.e. guaranteed rated power input must be achieved according to the fixed parameters. No allowance shall be permitted to alter fixed parameters. No relaxation in this regard is permitted.

Particulars and Details to be submitted by the bidder:

In order to properly assess and due diligence on submissions, the Bidder should provide following information on the quality and photometric of proposed luminaries.

1. **GeneralDescription**

   Following details of the proposed luminary shall be submitted as per Annexure: II.

2. **Electrical specifications**

   Electrical ratings of the proposed luminary product shall be submitted in Annexure: III.

3. **LED chip and driver information**

   LED chip and driver information of the proposed luminary product shall be submitted in Annexure: IV.

4. **Photometric information to be submitted as per Annexure: V.**

5. **Tests & certificates:**Tests are classified as:– Type test

   Acceptance test

   Routine rest.

   The luminary should be tested as per IEC 60598-2-3: 2002 standards and following test reports should be submitted: -

   (i) Heat Resistance Test(ii)
   Thermal in SITU Test(iii)
   Ingress Protection Test

   (iv) Drop Test

   (v) Electrical/InsulationResistance Test

   (vi) Endurance Test,

   (vii) Humidity Test,

   (viii) Electrical &Photometric Measurements Test Report(IES LM 79/IS 16106-2012)

   (ix) LED Lumen Maintenance Test Report (IES LM 80/IS 16105-2012)

   (x) Vibration test as perANSI

   TypeTest:-

   Type test certificates for both the luminaries' shall be provided with the technical-bid.

   AcceptanceTests: -

These tests are carried out by an inspecting authority at the supplier's premises on sample taken from a lot for the purpose of acceptance of a lot. Acceptance tests shall not be carried out from particular size from the lot on which type tests have already been conducted. Recommended sampling plan is given below.

Sample size and criteria for conformity

The luminaries shall be selected from the lot at random. In order to ensure randomness of selection, procedures given in IS 4905-1968 (Reaffirmed 2001) may be followed.

Routine Tests:

These tests shall be performed by the manufacturer on each complete unit of the same type and the results shall be submitted to the inspecting agency, prior to offering the lot for acceptance test. The firm shall maintain the records with traceability.

Table#5:
TestScheme:-

Sr. No.	Descriptionof test	Prototype Test	Type Test	Acceptance Test	Routine Test
1	VisualandDimensional check	Y	Y	Y	Y
2	CheckingofdocumentsofpurchaseofLED	Y	Y	Y	Y
3	Resistanceto humidity	Y	Y	---	---
4	Insulation resistancetest	Y	Y	Y	Y
5	HV test	Y	Y	Y	Y
6	Overvoltage protection	Y	Y	Y	---
7	Surgeprotection	Y	Y	Y	---
8	Reverse polarity	Y	Y	Y	Y
9	Temperature riseTest	Y	Y	---	---
10	Ra(ColourRendering Index)measurement test	Y	Y	---	---
11	Luxmeasurement	Y	Y	Y	Y
12	FireretardantTest	Y	Y	---	---
13	TestforIP65protection	Y	Y	Y	---
14	Environmentaltests	Y	---	---	---
15	ReliabilityTest	Y	---	---	---
16	LifeTest	Y	Y	---	---
17	EnduranceTest	Y	---	---	---

MethodofTesting:-

- **VisualandDimensional Check:**

  The unit shall be checked visually for all dimensions as per approved design and drawing.General workmanship should be good; all the components properly secured and sharp edges shall be rounded off. Check the marking and quality of the workmanshipvisually. Check the rating and make of electronic/ electricalitems.

- **Checkingof documentsofpurchase of LED**

Check Document of purchase of LED lamps of approved sources viz. NICHIA/ OSRAM/ PHILIPS LUMILEDS/ CREE.

- **Resistance to humidity test**

  This is carried out by suspending the painted panels in corrosion chamber maintained at 100% RH and temperature cycle of 42 to 48° C for 7 days and examining it for any sign of deterioration and corrosion of metal surface.

- **Insulation resistance test**

  The insulation resistance of the unit between earth and current carrying parts shorted together shall not be less than 2 MΩ when measured with 500 V megger.

- **HV test**

  Immediately after insulation resistance test, an AC voltage of 1.72 KV rms (1500 + 2 x rated voltage) of sine wave form of 50 Hz shall be applied for one minute between the live parts and frame. There shall not be any kind of break down, flashover or tripping of supply.

- **Over voltage protection**

  The LED Driver Shall be cut off once voltage exceeds 310V +/- 10 VAC. It shall be reconnected when supply comes within limit.

- **Surge protection**

  It shall withstand a surge of 4 kV at the input terminals for all types as per IEC 61000-4-5.

- **Reverse polarity**

  The Luminary shall withstand polarity reversal. It shall be operated with reverse voltage for 5 minutes at maximum value of voltage range. At the end of this period, the supply shall be made correct polarity and Luminary shall operate in a normal way.

- **Temperature rise Test:**

  Temperature rise Test shall be conducted at 100 V ~ with full load. The temperature rise shall be recorded by temperature detectors mounted at the specified reference points on the body of semiconductors, capacitors and other components as agreed between purchaser and manufacturer. The maximum-recorded temperature under worst conditions shall be corrected to 55° C and compared with maximum permissible temperature (for power devices atjunction). Under loading conditions as specified above, the corrected temperature of the power devices shall have a safety margin of minimum 10° C.

  Temperature at junction shall not exceed 100° C when corrected to 55° C. The Luminary shall also be subjected for short time rating after continuous loading to ensure the temperature rise is within the permissible limit. The maximum temperature rise of the electronics devices on the PCBs shall be in limitfor industrial grade components suitable for 85° C environment. In case of exceeding limit, use of MIL-grade component shall be considered keeping RDSO informed.

❖ **Ra (Colour Rendering Index) measurement test**

The lumen is the unit of luminous flux, which is equal to the flux emitted in a solid angle of one steradian by a uniform point source of one candela.

The initial reading of the chromaticity co-ordinates x & y shall be within 5 SDCM (StandardsDeviation for Colour matching) from the standardised rated value as per Annex: D of IEC60081- 1997.

The initial reading of the general colour-rendering index (Ra) shall not be less than the rated value decreased by 3.

The lumen maintenance of the lamp shall not be less than 80% of the initial lumen after20,000 burning hours and 70% of the initial lumen after 50,000 hours. The initial lumen will be taken after 100 hours aging.

Photometric test shall be conducted as per Annexure: B of IEC 60081-97.

The lumen maintenance test shall be done as per Annexure: C of IEC 60081-97.

❖ **Fire retardant Test**

Fire Retardant test shall be conducted as per IEC 60332-1 of the wire used in the luminaires.

❖ **Test for IP 65 protection**

This test shall be conducted as per IEC 60529.

❖ **Environmental tests (Prototype Test)**

The Luminary shall meet the following tests as prescribed in IEC–60571.

(i) Dry heat test.

(ii) Damp heat test

(iii) Test in corrosiveatmosphere

(iv) Combined dust, humidity and heat test

❖ **Reliability Test**

The reliability can only be determined in actual service. However, the following tests shall be carried out on the prototype to simulate as close as possible, the service conditions.

There shall be no failure during this test.

(i) The light unit shall be mounted in an oven maintained at 45° C.

(ii) The light will be operated at the specified maximum voltage and at 45° C for a period of100 hours.

❖ **Photometry Test: -**

The test shall be carried out for Total Luminous Flux, Luminous Intensity Distribution, Electrical Power,Luminous Efficacy (calculation),ColorCharacteristics–Chromaticity, CCT & CRI etc. as per IES LM 79/IS 16106-2012. Tenderer will have to submit IES file generated from LM 79 report.

❖ **Life Test**

The lumen maintenance & life test shall be done as per IES LM 80/IS 16105-2012 for LEDs.

❖ **Endurance Test**

The Luminary shall be kept "ON" with input voltage of 250 V ~ for 200 hours. After this the Luminary is subjected to 20,000 cycles of "ON" and "OFF", each cycle consisting of 3 seconds "ON" and 10 seconds "OFF" period. Luminary should survive this test. Test is to be continued for 20,000 cycles, followed by performance test.

❖ **Safety:**

The Luminary shall comply with the safety requirements as per IEC 61195, IEC 60598-2-3/IS-10322 Part 2 Section 3, IEC 62471, IEC/TR 62778.

All Tests defined for acceptance other than LM 79 and LM 80 are allowed to carry out at Manufacturer works. LM 79 must be prepared by third party government/ NABL approved laboratory only. LM 80 Report is prepared by LED Chip Manufacturer.

❖ **Infringement of patent rights:**

SURAT URBAN DEVELOPMENT AUTHORITY shall not be responsible for infringement of patent rights arising due to similarity in design, manufacturing process, use of the components, used in design, development and manufacturing of these light luminaries and any other factor which may cause such dispute. The responsibility to settle any issue rises with the manufacturer.

7. **Marking:**

The following information shall be distinctly and indelibly marked on the housing:

- Year of manufacture/ Batch Number/ Serial Number
- Name of Manufacturer (Engraving only, stickers not allowed)
- Rated watt and voltage
- Inputfrequency

ITEMNO.19

Detailed Specification remain same as per above Item No.18

ITEM NO. 20

S.E.T.C. of street feeder pillar:

(a) 9 KW, 3 Phase Complete Feeder Pillar

General Requirements:

❖ The materials and components not specifically stated in this specifications but which are necessary for satisfactory operation of the feeder pillar are deemed to be included in the scope of supply unless specifically excluded.

❖ All nut, bolts and washers used should be of G.I. Necessary bolt nut and washers required forcable termination shall be provided.

❖ Cable entry hole shall be provided on bottom plates with cable gland according to size of cable.

- ❖ All the G.I. parts shall be in single run. Any unnecessary joint shall not be allowed.
- ❖ Un detachable canopy with slope shall be provided for weather proof outdoor use.
- ❖ Power Terminal Block of suitable size depending upon current should be provided at incoming as well outgoing.
- ❖ The item includes dismantling of existing feeder pillar. The work must be carried out as per instruction of engineer in charge. The feeder pillar shall be dismantled carefully and carted to the SUDAstore or the other site (as informed by engineer in charge). The feeder pillar shall be dismantled in healthy condition. All the safety rules must be followed and safety precautions must be taken while doing dismantling work. Old material shall not be required to deposit in the store of Suda. The rate should be quoted accordingly.
- ❖ Feeder pillar shall be manufactured from CPRI approved panel manufacturer.

Construction:

- Feeder pillar shall be of stand mounting self supportive type. Its enclosure shall be of robust construction of cubical pattern.
- It will be outdoor type thus its enclosure should provide IP 54.
- It shall be dust, damp and vermin proof.
- It shall be fabricated from 3 mm G.I. sheet. It shall be erected on 700 mm long stand of angle of size 40X40X5 mm M.S hot dip galvanized. Sheet used for fabrication should be of standard make only.
- The pillar shall have hinged door with panel type lock with keys in duplicate, Cable glands etc.
- It should also have provision for viewing energy meter without opening the door i.e. a glass window with screen be provided. This Glass should be covered with Flip type cover of GI which can be opened to above.
- The item includes earthing of the feeder pillar as described under and also includes reconnection of Power supply to feeder.
- Feeder pillar should be fabricated of sheet of fine finish. There shall be no welds or bolt heads apparent from outside.
- The fabricated body shall be thoroughly cleaned and treated by chemical agents as required to produce a smooth surface free of scales, grease and rust. The complete pillar shall be powder coated with Siemens Greypaint only. The paint should be carefully selected to withstand tropical heat, rain and environmental effects. The paint shall not scale off or crinkle or be removed by abrasion due to normal handling. All insulators, current carrying parts shall be cleaned properly after painting.
- It has neoprene rubber gasket for proper protection. A danger notice board to be made from2 mm G.I. plate for medium voltage to be provided on the front door of the feeder pillar. The details of connected load in KW, service No., Meter No., area in which Street-light poles erected name of the agency and year of erection shall be labelled using radium sticker/radium paint.
- Insulation resistance between live parts and earth terminal shall be 5 MΩ minimum.

- It shall be able to withstand high voltage (HV) test at 1.5 KV for 1 minute between live parts (current carrying parts) and earth terminal without breakdown of insulation.

Following willbetheScopeofWork:

- Erection of New Feeder pillar with necessary Foundations
- Preparation of Earthing & its connection with New Feeder pillar
- Co-ordination with supply company for connection of power supply
- Connection of Existing outgoing cable to New Feeder Pillar with suitable Lugs & Cable Gland
- Following materials shall be used in this case.

Sr. No.	DETAILED ITEM OF FEEDER PILLAR CAPACITY	6KW,3Ø	9KW,3Ø	12KW,3Ø
1	3PoleMCCB(Cat:III), 35kA	25A	32A	32A
2	4PoleELCB(CatIII), 10kA,100mALeakage Current	25A	40A	40A
3	Contactor,AC 3(3pole)	1No.of25A	1No.of40A	2No.of40A
4	Timer(Astronomical Type)	1No.Single channel	1No.single channel	1No.Dual channel
5	UV &OV Monitoring Relay	1No.	1No.	1No.
6	MCB(Cat:III),10kA	3No.of25A, 1 Pole	3Nos.of32A,1 pole	6Nos.of32A,1 pole
7	Neutrallink	1No.of32/63/125 Amp	1No.of32/63/125 Amp	1No.of32/63/125 Amp
8	Connectorstripfor neutral	25X3Cubusbar		
9	BakelitesheetofHYLAM orequivalentmake	Theaboveshallbemountedon11KVgradeBakelitesheet having thicknessof 12mm.		
10	FeederPillarBox (HxWxD)	1000x750x450 mm	1000x750x450 mm	1000x750x450 mm
11	Foundationfor Feeder Pillar(HxWxD)	900X 850X 550mm	900X 850X 550mm	900X 850X 550mm
12	DangerNoticeBoard	1No.	1No.	1No.
13	Cuwire forwiring	~8mtr.(6sqmm)	~8mtr.(10sqmm)	~8mtr.(10sqmm)
14	EarthingStationwith GI Strip of 25X3mm	1No.	1No.	1No.

Detailed Specificationsof Major Components:

Detailed specification for MCCB:

- It should be light weight, Modular construction and confirming to IS 12640-1988/IS 8828-1996. It shall be truly current operated incorporates 35 kA early cut off to provide protection against overload short circuit and earth leakage faults. All metal parts should be inherently resistant to corrosion.

Technical Data MCCB:

Number of poles - 3, Characteristic - CBreaking

Capacity – 35 kA

Rated voltage - 1 pole 240 - Multiple pole 415 V.

Frequency - 45 to 60 HZ, Maximum operating voltage - 440

Fixing - Snap fixing on standard DIN rail profile EN 50 023 - 35 x 7.5

Detailed specificationfor ELCB:

Earth Leakage circuit breaker confirming to IS-12640/1988 & BS 4293/1983 with latest amendment having sensitivity 100 mA and breaking capacity of 16 KA and suitable for 1-phase & 3-phase, 4 pole having characteristic of quick acting & tripping with all advance feature with suitable en closure box/mounting rail.

Detailed specification forcontactors:

40 Amp, 500 V, 50 HZ TP high rupturing capacity contactors for incoming 3 Phase, 4 wire, 440 V, 50 HZ electric supply should have following technical data.

Main Poles - 3

Current rating – Minimum 40 Amp. (As per given in above table) Duty- AC – 3

Terminal capacity - Suitable for connecting 4 X 25 sq mm Aluminium conductor cable with or withoutcable end socket.

Detailed specification for Astronomical Timer:

1. Single Channel Astronomical Timer: For 6 kW, 3 Ph and 9 kW, 3 Ph Feeder Pillar
2. Dual Channel Astronomical Timer: For 12 kW, 3 Ph Feeder Pillar

The Astronomical type Time switch should be effective for controlling the lighting having high operational precision; Timer Enclosure shall have minimum IP 20 Protection. Timer shall be able to automatically adjust switch on-off time as per sunrise & sunset time at Surat city for the throughout the year. It should be possible to set schedule time manually as per instruction of Engineer in Charge whenever required at site with the help of switches/buttons. It shall have auto recovery feature to switch on street light once supply restores. It should have sufficient back lift LCD display for setting & indication. In case of Dual channel timers, different programming of both NO contact shall be possible to achieve energy saving. It should have following technical characteristics.

Technicalspecification

OperatingVoltage	110-240VAC
SupplyFrequency	50Hz
Ambient Temperature	-10^{O}Cto $+50^{O}$ C
channels	ForSingleChannel-1No. For DualChannel-2Nos.
Mounting	DINrail
Powerreserve	Morethan5years(WithBattery)

SwitchingContacts(Potential Free)	ForSingleChannel-1NO For DualChannel-2NO
ContactSwitchingCapacity	Min6Aat230V &CosØ= 0.6
Surge Level	4kV
TimeAccuracy	≤ 1.0s/dayatOperating Temperature

Programming	1.Latitude/ Longitudeprecisiontotheminute,withtime zone 2.OFFSETFacility 3.OFFhours 4.ManualOverride 5.YearlyProgramming

Detailed specificationfor UV& OVMonitoring Relay:

The UV & OV Monitoring relay should continuously monitor supply voltage. It shall be settable enough to set its UV & OV limits and trip time at site with the help of Switches/Buttons. It should provide settable trip time during UV & OV condition. It should have auto restoration facility available when supply voltage being monitored come under permissible limits. It should have following technical characteristics. Enclosure shall have minimum IP20 Protection.

Technical specification

OperatingVoltage	-3ph 4-wire, 415V AC
SupplyFrequency	50Hz
Ambient Temperature	-10^{O}Cto $+50^{O}$ C
Mounting	DINrail
SwitchingContacts(PotentialFree)	For3Ph,4Wire-2C/OMin.
Programming	I. UV &OV limitSetting II. TripTimeSetting
UV/OV VoltageSettingRange	1.Under Voltage Mode:95%to55%instepsof5% 2.Over VoltageMode:105%to125%instepsof5%
Surge Level	4kV
Time Delay Setting	0to10sec
SettingAccuracy	±5 %of SupplyVoltage i.e.230V
SwitchingCapacity	Min6Aat230 V &CosØ= 0.6

Detailed specification for MCB:

It should be lightweight, Modular construction and confirming to IS 12640-1988/IS 8828-1996. It shall be truly current operated incorporates 10 kA early cut off to provide protection against overload short circuit and earth leakage faults. All metal parts should be inherently resistant to corrosion.

Technical Data MCB :

Number of poles - 1, Characteristic - C

Breaking Capacity – 10 kA

Rated voltage - 1 pole 240/415 V - Multiple pole 415 V. Frequency - 45 to

60 HZ, Maximum operating voltage - 240

Fixing - Snap fixing on standard DIN rail profile EN 50 023 - 35 x 7.5

Detailed specification for C.C. foundation for feeder pillar

The masonry (1:1.5:3) rectangular block in C.M. (1:6) (size as mentioned in above table) above the ground level including necessary excavation in all types of soil (including dismantling all types of roadsurfaces) with all safety provisions to be made for dewatering if required, refilling the sides with selected excavated earth and removing excavated stuff as directed, including bed concrete (PCC) in proportion of 1:4:8, including smooth plasters in C.M. 1:4 on exterior surface above ground level including curing etc.complete as directed by Engineer-in-charge. DWC pipe shall be placed in foundation in order to facilitate cable entry for incoming as well as outgoing cables. The site should be cleaned or excess material should be removed after the work is completed. While making foundation, best civil engineering practice(s) must be exercised. Bidder must take approval of foundation drawing before carrying of work.

Detailed specifications for earthing of Feeder Pillar:

The pipe type earthing having 1500 mm long and 2.5 cm dia. Galvanised iron pipe with coupling and buried in specially prepared earth pit complete with necessary 25X3 mm GI Earth strip with coupling and GI plug for earthing of switch gear as directed by Engineer-in-charge. This item includes supply, erection, testing and commissioning. The earthing must be as per IS 3043 (1987), Latest Amendment. Contractor must use salt and charcoal/coke as required for pipe type earthing.

ITEM NO. : - 21

Painting theNumber of Pole:

Painting the number and words for (street light pole numbering and back ground of colour as per Zone Code) inventory Identification on erected fittings/ equipment's or such accessories as may required with good quality of enamelled paint like Asian, Shalimar, Burger or equivalent.

(i) up to 20 characters, Up to 50 mm Height. & (iii) add for additional each 25 mm Height.

ITEM NO. : -22

Pole Earthing:

Pipe type earthing having 150 cms long and 2.5 cms. Dia galvanised iron pipe with coupling and buch buried in specially prepared earth pit complete with necessary 25 x 3 mm size GI earthing strip using salt and charcoal / coke as required for pipe type earthing. Earthing pipe will be connected to pole by Glearthing strip through nut-bolt & washers. GI welding of strip/ bolt with pole's face should be done for durable earthing.

ITEM NO. : -23

Excavation for Foundation:-

Excavation for foundation up to 1.5 mt Depth including sorting out, strutting and stacking of useful materials and disposing of the excavated stuff with all lead and lift in (A) Loose or soft soil. etc. complete. The Item shall be executed as per the relevant specifications of general technical specification for building work booklet Item No.4.0.0(A)/ Page No.29.

ITEM NO. : -24

CHEMICAL TYPE POLE EARTHING

Supplyng & erecting earth pit of minimum bore dia. 150mm size approved make Earthing Electrode consisting Pipe-in-pipe Technology as per IS 3043-1987 made of corrosion free G.I.Pipes having Outer pipe dia. Of 50mm having 80-200 Micron galvanising, inner pipe dia of 25mm having 200-highly conductive compound with high charge dissipation suitable for following type of application.(b) for electrical installation up to 11kV in normal soil. Length of pipe : 2.00 mtrs Back filling compound : 1 no. bag of 25 Kg.

ITEM NO. : -25

Providing and laying cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 hand broken. stone aggregates 40 mm. nominal size) and curing complete excluding cost of form work as required & directed by the Engineer-in-charge.

Providing and laying Cement Concrete 1:3:6 (1 Cement : 3 coarse sand: 6 crushed stone aggregates 40mm nominal size) and curing complete excluding cost of form work for wall cap & coping. The item shall be executed as per the relevant specifications of general technical specification for building work booklet Item No.5.3.14 (A)/page No38 + 9.1(H)1/page No. 65 except para 2.0. Form work is excluded in item, hence no payment is made separately for form work.

ITEM NO. : -26

Providing and laying cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and curing complete excluding cost of formwork in foundation and plinth.

1.0 Material

1.0Water

1.1 Water shall not be salty or brackish and shall be clean, reasonably clear and free from objectionable quantities of slit and traces of oil injurious alkalis, salts organic matter and other deleterious material which will either weaken the mortar or concrete or our cause efflorescence or attack the steel in RCC container for storage and handling of Water shall be clean water shall conform to the standards specification in 1. S. 4561978

1.2 if required by the Engineer-in-charge R shall be tested by comparison with distilled water compressionshall be and means of standard cement tests for soundness, time of setting and mortar strength as specified in I.S. 269-1976. Any indication on unsoundness, change in time Of setting by 30 minutes or more of decrease or more than 10 percentage of mortar prepared with water sample when compared with the results obtained with mortar prepared with distilled water shall be sufficient cause for rejection of water under test.

1.3 Water for cuing mortar, concrete or masonry should be too acidic or too alkaline. It shall be free of elements which significantly effect the hydration reaction or otherwise interface with the hardening of mortar or concrete during curing or which produce objectionable stains or other unsightly deposits on concrete or mortar surfaces.

1.4 Hard bitter water shall not be used for curing

1.5 Portable water will generally be found suitable for curing mortar or concrete.

2.0 SAND

2.1 Sand shall be natural sand clean well graded hard strong durable and gritty particles free from immures amounts of dust, clay kanker modules, soft or particles shall alkali salts, orga6ic matter, learn mica or other deleterious substance and shall got approved from the Engineer-in-charge. The sand shall not contain more than 8 percent of slit determined by field test. If necessary the sand.

2.2 Coarse Sand

The fineness modules of coarse sand shall not be less than 2.5 and shall not exceed 3.0

The sieve analysis of coarse sand shall be asunder :-

I.S. Sieve Designation	% by Wt. passing
4.75 mm	100
2.36 mm	90 to 100
1.18 mm	70 to 100
600 MC	30 to 100
300 MC	85 to 70
150 MC	00 to 50

2.3 Fine Sand

The finenessmodule shall not exceed 1.0 the sieve analysis of fine sand beas under

I.S. Sieve Designation	% by Wt. passing
4.75mm	100
2.36 mm	100
1.18 mm	75 to 100
600MC	40 to 85
300 MC	05 to 50
150 MC	00 to 10

3.0 Cement

3.1 Cement shall be ordinary Portland slab cement as per I.S. 1975 pr portiar alag cement as per I.S. 455 1976

4.0 Stone coarse Aggregate forNominal Mix Concrete:

Coarse aggregate shall, beor machine crushed stone of black, trap of equivalent and hand, strong, dense, durable, clean and free from skin and coating likely to prevent proper adhesion of mortar.

4.1 The aggregate shall begenerally be cubical in shape unless special stones of particular quarries

Sieve Designation	Percentage passing for single size aggregate of nominal size			IS Sieve Designation	Percentage passing for single size aggregate of nominal size		
	40 mm	20mm	16mm		40mm	20mm	16mm
80mm	-	-	-	12.50 mm	-	-	-
63mm	100	-	-	10.00 mm	0.50	0.20	0.30
40mm	85-100	100	-	4.75 mm	-	0.50	0.50
20mm	0-20	85-100	100	2.35 mm	-	-	-
16mm	-	-	85-100				

Note : This percentage may be varied some what by Engineer-in-charge when considered necessary containing better density and strength of concrete.

4.30 The gradingtest shall be taken in the beginning and at the change of source of materials. This is necessary that indicates in IS 383-1970 and IS 456-1978 shall have to be carried pit to ensure the acceptability. Aggregates shall be stored separately and chandelled in such a manner as to prevent the intermixing diff aggregate if aggregates are covered with dust , they shall be washed with water to make them clean.

1.0. Materials

Water shall conform to M-1. Cement shall conform to M-3. Sand shall conform to M-6. Grit shall conform to M-8.Graded stone aggregate 20 mm nominalsize shall conform to M-12.

2.0. General

2.1. The concrete mix is not required to be designed by preliminary testes. The proportion of the concrete mixshall be 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm. nominal size) by volume concrete work shall have exposed concrete surface oras specified in the item.

2.2. The designation ordinary M-100, M-150m M-200, M-250 specified as per I.S. correspond approximately to1:3:6, 1.2:4, 1:1:1/2:3 and 1:1:2 nominal mix of ordinary concrete by volume respectively.

2.3. The ingredients requiredfor ordinary concrete containing one beg of cement of 50 kg. by weight (0.0342 Cu.M.) for different proportions of mix shall beas under:

TABEL

Grade of concrete	Mix by volume	Total quantity of dry aggregates by volume per 50 kg. cement, to be taken as sum aggregate of the individual volumes of fine & coarse aggregates, maximum (1 cubic metre : 1000 Liters)	Proportion of fine aggregate to coarse maximum	Quantity of water per 50 kg. of cement
1	**2**	**3**	**4**	***5***
Ordinary M. 100	**1: 3:6**	**300**	**Generally 1:2 for fine aggregate to coarse aggregate by volume but to upper of 1: 1:5 and lower of 1:3**	**34**
Ordinary M. 150	**1: 2:4**	**220**		**32**
Ordinary M.200	**1 :1.5:3**	**160**		**30**
Ordinary M.250	**1 :1:2**	**100**		**27**

2.4. The water cement ratios shall not be more than specified in the above table. The cement content of the mixspecified in the table shall be increased if the quantity of water in mix has to be met eased to overcome the difficulties of placements and compaction so that the water-cement ratio specified in the table is not exceeded.

2.5. Workability of the concrete shall be controlled by maintaining a water -cement-ratio that is found to give aconcrete mix which is just sufficient wet to be placed and compacted without difficulty with the means available.

2.6. The maximumsize of course aggregate shall beas large as possible within the limits specified but in no casegreater than one forth of the minimum thickness of the member provided that the concrete can be placed without difficulty so as to surround all reinforcement thoroughly and to fill the corners of the form.

2.7. For reinforced concrete work; coarse aggregates having a nominalsize of 20 mm. are generally consideredsatisfactory.

2.8. For heavily reinforced concrete members as in the case of ribs of main beams, the nominalmaximumsize ofcoarse aggregate should usually be restricted to 5 mm. less than the minimum clear distance between the main bar or5 mm. less than the minimumcover to the reinforcement whichever is smaller.

2.9. Where the reinforcement is widely spaced as in solid slabs, limitations of size of the aggregate may not be soimportant, and the nominalmaximumsize may some times beas great as or greater than the minimum cover.

2.10. Admixture maybe used in concrete only with approval of Engineer-in-charge based upon the evidence thatwith the passage of time neither the compressive strength of concrete is reduced not are other requisite qualities ofconcrete and steel impaired by the use of such admixtures.

3.0. Workmanship

3.1. Proportioning : Proportioning shall be done by volume, except which shall be measured in terms of bags of 50kg. weight, the volume of one such bag being taken as 0.0342 cu. meter Boxes of suitable size shall be used formeasuring sand aggregate. The size of boxes (internal) shall be 35 x 25 cms. and 40 cms deep while measuring theaggregate and sand the boxes shall be filled without shaking ramming or hammering. The proportioning of sand shallbe on the basis of its dry volume and in case of damp saner, allowances for bulk age shall be made.

3.2. Mixing :

3.2.1. For all work, concrete shall be mixed in a mechanical mixed which along with other accessories shall be keptin first class working condition and so maintained throughout the construction Measured quantity of aggregate, sandand cement requiredfor each batch shall be poured into the claim of the mechanical mixer while it is continuouslyrunning. After half a minute of dry mixing measured quantity of water requiredfor each batch of concrete mix shall beadded gradually and mixing continued for another one and a half minute Mixing shall be continued till materials areuniformly distributed and uniform colour of the entire mass is obtained and each individual particle of the coarseaggregate shows complete coating of mortar containing its proportionate amount of cement. In no case shall themixing he done for less than 2 minutes after-oil ingredients have been put into the mixer.

3.2.2. When hand mixing is permitted by the Engineer-in-charge for small jobs or for certain other reasons, it shallbe done on the smooth watertight platform large enough to allow efficient tuning over the ingredients of concretebefore and after adding water Mixing platform shall be so arranged that no foreign malarial gets mixed with concretenor does the mixing water flow out. Cement in required number of bags shall be spread in n layer of uniform thicknesson the mixing platform. Dry coarse and fine aggregate and cement shall then be mixed thoroughly be turning over toget a mixture to uniform colour. Specified quantity water shall then beadded gradually through a rose can and themass turned over till a mix of required consistency is obtained. In hand mixing quantity of cement shall be increasedby 10 percent above that specified

3.2.3. Mixers which haw been out of usefor more than 30 minutes shall be thoroughly cleaned before puttingin a new batch. Unless otherwise agreed to by the Engineer in-charge the first batch of concrete from the mixture shallcontain only two thirds of normal quantity of coarse aggregate Mixing plant shall be thoroughly cleaned beforechanging from one type of cement to another.

3.3. Consistency:

3.3.1. The degree of consistency which shall depend upon the nature of the work and methods of vibration ofconcrete, shall be determined by regular slump tests in accordance with I.S. 1199-193. The skimp of 10 mm. to 25 mmshall be adopted when vibrators are used and 80 mm. when vibrators are not used.

3.4. Inspection:

3.4.1. Contractor shall give the Engineer-in-charge due notice before placing any concrete in the forms to permithim to inspect and accept the false work and forms as to their strength, alignment and general fitness but suchinspection shall not relieve the contractor of his responsibilityfor the safely of men

machinery materials and for resultsobtained immediatelybefore concreting all forms shall be thoroughly cleaned.

3.4.2. Centering design and its erection shall be got approved from the engineer-in-charge. One carpenter withhelper shall invariably be kept present throughout the period of concreting. Movement of labour and other personsshall be totally prohibited for reinforcement laid in position. For access to different parts suitable mobile platforms shallbe provided so that steel reinforcement in position is not disturbed. For ensuring proper cover, mortar blocks ofsuitable size shall be cast and tied to the reinforcement. Timber kapachi or metalpieces shall not be used for thispurpose.

3.5. Transporting and laying:

3.5.1. The method of transporting and placing concrete shall beas approved. Concrete shall be so transported andplaced that no contamination, segregation orloss of its constituentmaterial takes place. All from work shall be cleanedand made free from standing water dust, show or ice immediately before placing of concrete. No concreteshall be placed in any part of the structure until the approval of the engineer-in-charge has been obtained.

3.5.2. Concreting shall proceed continuously over the area between construction joints. Fresh concrete propercontraction joint is formed. Concrete shall be compacted in its final position within 30 minutes of its discharge from themixer. Except where otherwise agreed to by the engineer-in-charge, concrete shall be deposited in horizontal layers toa compacted depth of not more than 0.45 meter when internal vibrators are used and not exceeding 0.30 meter in allother cases.

3.5.3. Unless otherwise agreed to by the Engineer-in-charge concrete shall be dropped in to place from a heightexceeding 2 meters. When trucking or chutes are used they shall be kept close and used in such a way as to avoidsegregation. When concreting has to be resumed on a surface which has hardened, it shall be roughened, sweptclean, thoroughly wetted and covered with a 13 mm. thick layer of mortar composed of cement and sand in the sameratio as in the concrete mix itself. This 13 mm. layer of mortar shall be freshly mixed and placed immediately beforeplacing of new concrete. Where concrete has not fully hardened, all lateness shall be removed by scrubbing the wetsurface with wire or bristle brushes, care being taken to avoid dislodgement of any particles of coarse aggregate. Thesurface shall then be thoroughly wetted, all free water removed and then coated with neat cement grout. The first layerof concrete to be placed on this surface shall not exceed 150 mm. in thickness and shall be well rammed against oldwork, particular attention being given to corners and close spots.

3.5.4. All concrete shall be compacted to produce a dense homogeneous mass with the assistance of vibrators,unless otherwise permitted by the Engineer-in-charge for exceptional cases, such as concreting under water, wherevibrators cannot be used. Sufficient vibrators in serviceable condition shall be kept at site so that spare equipment isalways available in the even of breakdowns. Concrete shall be judged to be compacted when the mortar fills thespaces between the coarse aggregate and begins to cream up to form an even surface. Compaction shall becompleted before the initial setting stats i.e. within 30 minutes of addition of water to dry mixture. During compaction, itshall be observed that needle vibrators are not applied on reinforcement which is likely to destroy the bondbetweenconcrete and reinforcement.

3.6. Curing:

Immediately after compaction, concrete weather including rain, running water, shocks, vibration, traffic, rapidtemperature charges, frost and drying out process. It shall be covered with wet sacking has Sian or other similarabsorbent materialapproved, soon after the initial set, and shall be kept continuously wetfor a period of not less than14 days from the date of placement. Masonry work over foundation concrete may be started after 48 hours of itslaying but curing of concrete shall be continued for a minimumperiod of 14 days.

3.7. Sampling and testing of concrete:

3.7.1. Samples from fresh concrete shall betaken as per I.S. 1199-1959 and cubes shall be made, cured andtested at 7 days of 28 days as per requirementsin accordance with I.S. 526-1959. A

randomsamplingprocedure shallbe adopted to ensure that each concrete batch shall have a reasonable chance of being tested i.e. the samplingshould bespread over the entire period of concreting and cover all mixing units. The minimum frequency of samplingof concrete of each grade shall bein accordance with following:

Quantity of concrete in the work.	No of samples	Quantity of concrete in the works	No of samples
1-5 cmt.	1	16-30 cmt.	3
6.15 cmt.	2	31-50 cmt.	4
51 and above	4+ one additionalfor each additional 50 mm. or part thereof.		

Note : At least one simple shall be taken from each shift, Ten test specimens shall be made from eachsample, five for testing at 7 days and the remaining five at 28 days. The samples of concrete shall betaken on each day of concreting as per above frequency. The number of specimens may be suitablyincreased as deemed necessary by the Engineer-in-charge when procedure of tests given abovereveals a poor quality of concrete and in other special cases.

3.7.2. The average of the group of cubes cast for each day shall not be less than the specified cube strength of 150K/g Cm 2 at 28 days. 20% of the cubes cast for each day may have value less than the specified strength providedthe lowest value is not less than 85% of the specified strength. If the concrete made in accordance with theproportions given for a particular grade does not yield the specified strength, such concrete shall be classified asbelonging to the appropriate lower grade. Concrete made in accordance with the Proportions given for a particulargrade shall not, however be placed in a higher grade on the ground that the test strength are higher then the minimumspecified..

3.8. Stripping:

3.8.1. The Engineer-in-charge shall be informed in advance by the contractor of hr>intention to strike the formwork. While fixing the time of removal of form work, due consideration shall be given to local conditions,character of the structure, the weather and other conditions that influence the setting of concrete and of the materialsused in the mix. In normal circumstances (generally where temperatures are above 20.C) and where ordinaryconcrete is used, forms may be struck after expire or periods specified in item No.9.1 (A) for respective item of formwork.

3.8.2. All formwork shall be removed without causing any shock or vibration as would damagethe concrete. Beforethe soft and struts are removed, the concrete surface shall be gradually exposed, where necessary in order toascertain that concrete has sufficiently hardened. Centering shall be gradually and uniformly lowered in such amanner as to permit the concrete to take stresses due to its own weight uniformly and gradually. Where internal metaltiles are permitted, they or their removable parts shall be extracted without causing any damage to the concrete andremaining holes filled with mortar. No permanently embedded metalpart shall have less than 25 mm. cover to thefinished concrete surface. Where it is intended to re-use the form work, it shall be cleaned and made good to thesatisfaction of the Engineer-in-charge. After removal of formwork and shutting, the Executive Engineer shall inspectthe work and satisfy by random checks that concrete produced is of good quality.

3.8.3. Immediately after the removal of forms, all exposed bolts etc. passing through the cement concrete memberand used for stuttering or any other purpose shall be cut inside the cement concrete member to a depth of at least 25m. below the surface of the concrete and the resulting holes be filled by cement mortar, all fins, caused by form joints,all cavities produced by the removal of form tiles and all other holes and depressions, honeycomb spots, brokenedges or comers and other defects, shall be thoroughly cleaned", saturated with water and carefully pointed anrendered true with mortar of cement and fine aggregate mixed in proportions used in the grade of concrete that isbeing furnished and of as dry consistency as is possible to use. Considerable pressure shall be applied in filling andpointing to ensure through filling in all voids. Surface which are pointed shall be kept moist for a period of 24 hours.

Ifrock pockets/honeycombs in the opinion of the Engineer-in-charge are of such an extentor character as to effect thestrength of the structure materially or to endanger the life of the steel reinforcement, he may declare the concretedefective and require the removal and replacement of the portions of structure affected.

4.0. Mode of Measurement& Payment

4.1. The consolidated cubical contents of concrete work as specified in item shall be measured. No deductionshall be made for(a) Ends of dissimilar materials such as joints, beams, posts, girders, falters, purling trusses, corbels and steps etc.,up to 500 Sq, Cm. in section.

4.2. The rate includes cost of all materials labour, tools and plantrequiredfor mixing, placing in position, vibratingand compacting, finishing, as directed, curing and all other incidental expensesfor producing centre of specifiedstrength. The rate excludes the cost of form work.

4.3. The rate shall befor a unit of one cubic meter.

ITEM NO. : -27

Providing and laying ordinary cement concrete M.200 and curing complete including the cost of form work and excluding the cost of reinforcement concrete work in Footing. The Item shall be executed as per the relevant specifications of general technical specification for building work booklet Item No.5.8.2(A)/ Page No.46 + 9.1(A)/ Page 63 except para 3.0The rate is inclusive of form work. The Item shall be measured & paid as finished work in Cum.

ITEM NO. : -28

Filling available excavated earth (excluding rock) in Trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth consolidating each deposited layer by ramming, watering and compacting with vibratory roller having minimum 80-100 KN static weight.

The Item shall be executed as per the relevant specifications of general technical specification for building work booklet Item No.4.12/P 35.

ITEM NO. : -29

Clearing and grubbing road land including uprooting rank vegetation, Grass bushes. Shrubs, saplings and trees girth up to and included 300mm removal of stumps of trees cut earlier and disposal of unserviceable materials (a) By manual means in area of light jungle

Scope

This work shall consist of cutting, removing and disposing of all materials such as trees, bushes, shrubs, stumps, roots, grass, weeds, top organic soil not exceeding 150 mm in thickness, rubbish etc., which in the opinion of the Engineer are unsuitable for incorporation in the works, from, the area of road land containing road embankment, drains, cross-drainage structures and such other areas as may-be specified on the drawings or by the Engineer. It shall include necessary excavation, backfilling of pits resulting from uprooting of trees and stumps to required compaction, handling, salvaging, and disposal of cleared materials. Clearing and grubbing shall be performed in advance of earthwork operations and in accordance with the requirements of these Specifications.

Preservation of Property/Amenities

Roadside trees, shrubs, any other plants, pole lines, fences, signs, monuments, buildings, pipelines, sewers and all highway facilities within or adjacent to the highway which are not to be disturbed shall be protected from injury or damage. The Contractor shall, provide and install at his own expense, suitable safeguards approved by the Engineer for this purpose.

During clearing and grubbing, the Contractor shall take all adequate precautions against soil erosion, water pollution, etc., and where required, undertake additional works to that effect vide Clause 306 MoRT & H fifth revision. Before start of operations, the Contractor shall submit to the Engineer for approval, his work plan including the procedure to be followed for disposal of waste materials, etc., and the schedules for carrying out temporary and permanent erosion control works as stipulated in Clause 306.3 of MoRT & H.

Methods, Tools and Equipments

Only such methods, tools and equipment as are approved by the Engineer and which will not affect the property to be preserved shall be adopted for the Work. If the area has thick vegetation/roots/trees, a crawler or pneumatic tyred dozer of adequate capacity may be used for clearance purposes. The dozer shall have ripper attachments for removal of tree stumps. All trees, stumps, etc., falling within excavation and fill lines shall be cut to such depth below ground level that in no case these fall within 500 mm of the bottom of sub grade. Also, all vegetation such as roots, under-growth, grass and other deleterious matter unsuitable for incorporation in the embankment/sub grade shall be removed between fill lines to the satisfaction of the Engineer. On areas beyond these limits, trees and stumps required to be removed as directed by the Engineer shall be cut down to 1.00 m below ground level so that these do not present an unsightly appearance.

All branches of trees extending above the trimmed as directed by the Engineer.

All excavations below the general ground level arising out of the removal of trees, stumps, etc., shall be filled with suitable material and compacted thoroughly so as to make the surface at these points conform to the surrounding area.

Ant-hills both above and below the ground, as are liable to collapse and obstruct free subsoil water flow shall be removed and their workings, which may extend to several metres, shall be suitably treated.

Disposal of Materials :- All materials arising from clearing and grubbing operations shall be the property of Government and shall be disposed of by the Contractor as hereinafter provided or directed by the Engineer.

Trunks, branches and stumps of trees shall be cleaned of limbs and roots and stacked. Also boulders, stones and other materials usable in road construction shall be neatly stacked as directed by the Engineer. Stacking of stumps, boulders, stones etc., shall be done at specified spots with all lead and lift.

All products of clearing and grubbing which, in the opinion of the Engineer, cannot be used or auctioned shall be cleared away from the roadside in a manner as directed by the Engineer. Care shall be taken to see that unsuitable waste materials are disposed of in such a manner that there is no likelihood of these getting mixed up with the materials meant for embankment, sub grade and road construction.

Measurements for Payment

Clearing and grubbing for road embankment, drains and cross-drainage structures shall be measured on **area basis in terms ofhectares**. Clearing and grubbing of borrow areas shall be deemed to be a part of works preparatory to embankment construction and shall be deemed to have been included in the rates quoted for the embankment construction item and no separate payment shall be made for the same. Cutting of trees up to and included 300 mm in girth including removal of stumps and roots, and trimming of branches of trees extending above the roadway shall be considered incidental to the cleaning and grubbing operations. Removal of stumps left over after trees have been cut by any other agency shall also be considered incidental to the clearing and grubbing operations.

Ground levels shall be taken prior to and after clearing and grubbing. Levels taken prior to clearing and grubbing shall be the base level and will be accordingly used for assessing the depth of clearing and grubbing and computation of quantity of any unsuitable material which is required to be removed. The levels taken subsequent to clearing and grubbing shall be the base level for computation of earthwork of embankment.

Rates

The Contract unit rates for the various items of clearing and grubbing shall be payment in full-for carrying out, the required operations including full compensation for all labour, materials, tools, equipment and incidentals necessary to complete the work. These will also include removal of roots of trees up to and included 300mm in girth as well as stumps left over after cutting of trees carried out by another agency, excavation and back-filling to required density, where necessary, and handling, salvaging, piling and disposing of the cleared materials with all lead and lifts.

Executive Engineer
Surat Urban Development Authority.
Surat

SEAL&SIGNATUREOFTHETENDERER: -

TENDER NOTICE NO : SUDA/CB/ / 2019-20

GENERAL SPECIFICATIONFORELECTRICALINSTALLATION

WIRING RULES:

The installation should be carried in conformity with the Indian Electricity Act/Rules and the latest edition of the wiring rules of the Institution of Electrical Engineer (London) but where this specification differs from those rules the specifications shall be followed.

DEFINITION:

The definitions of terms in the IEC wiring rules shall apply.

SUPPLY PRESSURE AND FREQUENCY:

The supply will be three phase 50 cycles/second AC, 4 wire system, 415 volts between phase and230 volts between phase and neutral and apparatus required shall be suitable for this supply.

TEST:

The installation with fittings complete shall satisfactorily pass the following tests, before the current isswitched on:-

"All the lamps and appliance having been connected to the conductors and all switches and fuses be ON. A pressure not less than twice the working pressure (subject to a limit of 500 volts) shall be applied and the insulation resistance of the whole or any part of the installation to earth must not be less in MΩ than 25 divided by the number of points, subject to Min. of 1.5 MΩ."

PRECAUTION AGAINST INSECTS AND DAMP:

All outlets of system shall be properly framed and ventilated in such a manner as to prevent theentry of insects.

EARTH WIRE AND PLATES:

The earthing wire and the connection with earth shall be of 8 SWG G. I. as per specified/instructed by Engineer-in-charge and shall be so constructed and laid as to avoid the formation of any electronic couple. All earthing wires shall be efficiently protected against mechanical damages.

SUPERVISION:-

The whole of the work shall be carried out to the satisfaction of the Engineer in charge and under the constant supervision of the contractor's competent qualified and experienced Electrical Engineer. The contractor shall if required by the department, furnish the full details of the Engineer's qualification. Only permit holders persons should be allowed to work at the site

Executive Engineer

Surat Urban Development Authority

Surat.

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SEAL&SIGNATUREOFTHETENDERER: -

TENDER NOTICE NO : SUDA/CB// 2019-20

SCHEDULE-B

As Per Attached Sheet						

Executive Engineer
Surat Urban Development Authority
Surat.

SEAL&SIGNATUREOFTHETENDERER: -

TENDER NOTICE NO : SUDA/CB/ / 2019-20

VENDOR'S LIST

Sr. No.	Equipments/ Accessories	Make
1.	Armoured/ UnarmouredCable	UNISTAR, Gloster, CCI, Incab, Torrent, FINOLEX, Bharat Cab, Havells, Avocab, KEI, RR Kabel
2.	ELCB/MCB/DistributionBoard	Standard, Indokupp, MDS, Havells, Hager, Schneider, Siemens, ABB, L & T, Bentec, C&S
3.	TimeSwitches	L & T, MDS, Theaben, Siemens, Protime, Schneider, Legrand
4.	Contactor	L&T, Siemens, Havells, Schneider, ABB, GE.
5.	OctagonalPole	BPP,Bajaj,TransraillightingLtd,Valmont.
6.	DWCPipe	Rex, Gemini, Duraline
7.	LED Chip	Cree/ Osram/ Nichia/ Philips Lumileds
8.	Junction Box	Sintex, Everest, ESCO, National, EPP, Welltech
9.	GI Round Pole/ Guard Pipe	Tata, Asian, CTC, Jindal, Apollo, Zenith, Ambica, GST

Executive Engineer
Surat Urban Development Authority
Surat

SEAL&SIGNATUREOFTHETENDERER: -

TENDER NOTICE NO : SUDA/CB/ / 2019-20

GENERALTERMSANDCONDITIONS

1. It should be clearly noted that payment of earnest money deposit & Tender fee will be made either by pay order or demand draft only is must for consideration of the tender. TENDER GUARANTEE & Tender fee in any other form like cash, cheque, Bank guarantee etc. shall not be accepted. Tender without TENDER GUARANTEE & Tender fee shall be out rightly rejected. The demand draft or pay order should be in the name of "CHIEF EXECUTIVE AUTHORITY' SURAT URBAN DEVELOPMENT AUTHORITY " only and must be enclosed with the tender. The pay order/demand draft should be valid for minimum 180 days.

2. The tenderer/contractor shall also attach with the tender the copy of Registration in SUDAor any other Government/Semi Government department, the latest SALES TAX CLEARANCE CERTIFICATE and sales tax registration. The contractor shall also be required to produces solvency certificate of minimum 20 % amount of the total tender value.

5. The work must be completed in all respect within stipulated time period as mentioned in Important instruction to bidder, failing which penalty @ 0.2% of order value of unexecuted portion per day of delay subject to maximum 10% of unexecuted portion order value shall be charged and shall be deducted from the bill or any outstanding payment. Also, if contractor fails to execute the work than action against contractor will be taken as per decision of competent authority of SUDAand that should bind to contractor.

4. The contractor must follow all safety rules for the worker and public safety.Improper /misconduct for precaution, shall be penalized by SUDAsuitably.

5. Although all proper precautions may have been taken by contractor at all the times during work, tenderer shall be responsible for all damages whether to the work under execution or to any other property or lives of persons during the progress of the work and the period of defect liability period.

6. The Contractor shall be responsible for and shall pay any compensation to his workmen payable under the workmen's compensation Act 1923 (VIII of 1923) of any statutory modification thereof for injuries caused to workmen.

7. Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in the tender of estimate.

8. No compensation shall be allowed for any delay caused in the starting of the work on account of any acquisition of land in the case of clearance work, for any delay in accordance to estimate.

9. Disputes if any shall be discussed and mutually settled and in case of disagreement the same shall be referred to Chief Executive Authority, SUDA. After referring to Chief Executive Authority, SUDA if the said dispute is not solved, the same be referred to the court subject to Surat jurisdiction only.

10. List of reputed customers/similar works executed must be furnished with the tender.

11. Offer for the complete job i.e. Supply, erection, testing and commissioning of lighting system shall only be considered.

12. The work shall be carried out during working days between 8.00 A.M. to 6.00 P.M. only. If the contractor intends to work in holidays or outside working hours specified, he shall take prior written permission from Engineer in charge/Executive Engineer.

13. It will not be possible to provide any housing accommodation at site to the erection staff of the tenderer. Further labours, welding sets and sundry materials like cotton/ chindi waste, tools, crane, spanners etc. required for the erection shall not be supplied by the SUDA. Any kind of material/equipment for the purpose of testing shall be arranged by the contractor. Contractor hasto make his own arrangement for all the material required for testing of equipment at site. On completion of work the site must be cleaned down; rubbish removed and the works and land cleaned of rubbish; surplus materials and other accumulations, and everything left in a clean and ordinary condition.

14. The material/equipment offered by the tenderer must carry an un-conditional guarantee of minimum one year from date of commissioning. The amount of performance guarantee shall be retained till expiry of satisfactory guarantee period. During the defect liability period, all necessary spare(s)/material(s) required will be supplied/arranged by contractor.

15. During defect liability period, if any spare(s)/material(s) found defective than same should be repaired or new spare(s)/material(s) is to be replaced. In no case second hand material is not allowed.

16. The successful Contractor shall be required to deposit an amount equal to 2.5% of the total order value as Security Deposit in Suda in by Demand Draft (up to Order value of25 lacs) DD or FDR (For Order value exceeding 25 lacs) in the name of "Chief Executive Authority, SURAT URBAN DVELOPMENT AUTHORITY", of any Nationalized Bank, Any Branch, within 10 (Ten) days of order failing which penalty @ 0.065% of the Security Amount per day of delay shall be charged. The successful Contractor shall also be required to enter into contract agreement along with undertaking and local surety on Gujarat Stamp Paper purchased from Surat worth Rs.300 .00 (i.e Rs. 100.00 + 100.00 +100.00 for each) (To be brought by the Contractor) on getting the order. If security deposit in form of FDR, the Bidder shall have to become the contractagreement on non – judicial Gujarat stamp paper of amount of 4.25% of security deposit amount.

17. The terms of payment shall be as specified earlier in important instruction to tenderers. The SUDAshall not accept advance payment term. All payments are subject to income tax and sales tax deduction at source as per rules. All payments shall be made by A/C Payee cheque of any schedule bank Surat branch only or as per prevailing rules/regulations of SUDA.

18.The validity of the tender should be minimum 120 days from the date of opening of the tender(Price-Bid opening).

19.The technical illustrative literatures with sketches, if required, giving full details for each item must be enclosed with the tender clearly indicating the model quoted.

20.The rates for all individual items should be filled in the price schedule and all the tender documents duly filled in wherever necessary and tender papers duly signed wherever specified must be returned. If any page is taken out or tender papers are not returned or any change is made in tender papers, the TENDER GUARANTEE shall be forfeited rejecting the offer out rightly. Tenderer may attach separate sheet for any remarks or specifications if they intend to specify along with the tender only.

21.Unless specified the equipment must comply with relevant IS, which must be specified.

22.Sealed Technical Bid duly super scribed with tender notice number and due date must reach the office of the, SURAT URBAN DEVELOPMENT AUTHORITY , Nanpura, SURAT – 395 001.on or before the date mentioned in the memorandum by Registered post or Speed post only. Tender sent through angadia /courier or Hand delivery shall not be accepted. The Technical Bid shall be opened on the next working day if possible at 4.30 PM in presence of intending tenderers. The SUDAshall not be responsible for postal delay.

23.Conditional tenders shall not be accepted.

24. No correction, overwriting erasures in filling tender papers shall be considered unless countersigned.

25.In case of any misunderstanding due to interpretation of any terms, conditions or specifications the decision of Chief Executive Authority, SURAT URBAN DEVELOPMENT AUTHORITY , Surat shall be final and binding on the part of contractor.

26.The contract shall be constituted according to and subject to laws in India and State of Gujarat and under the jurisdiction of courts of Gujarat at Surat only.

27. The correctness of details given in tender documents is not guaranteed. The contractor shall independently obtain all necessary information for making the tender. The contractor shall be deemed to have examined the contract documents, to have generally obtained his own information in all matters that might affect the tendered rates.

28. Any Error in description does not relieve the contractor from executing the work according to specification. Tender documents must be viewed in totality. If there is contradiction in any specification(s)/ General terms/Conditions, most stringent will prevail.

29.No officer, Employee of SUDAis admitted to any share or part of this contract to any benefit that may rise there from.

30.Tender documents are not transferable.

31.The competent authority of SURAT URBAN DEVELOPMENT AUTHORITY reserves the right to reduce the scope of work and split the tender in two parts or more without assigning any reason even after award of contract.

32.SUDAwill not defray expenses incurred by tenderer in tendering.

33. After completion of job the contractor shall submit the test reports, technical literatures, wiring diagram, operation and maintenance manual, complete installation drawings etc. All these shall be printed and bound in book form. Payment shall be released only on receipt of this volume in triplicate.

34. Price variation clause of any form shall not be accepted. Price shall remain firm till execution of order.

35.The tenderer must visit the site before submitting the tender.

36.Any damage to any service or accident in carrying out the works pertaining to this contract shall be to contractors account.

37.INSURANCE:-

Contractor shall be responsible, at his own expenses for confirming to and complying with all existing laws and regulations to protect his personnel against job connected accidents and third party claim against property damage as well as for the death and injury arising out of any action on the part of the contractor personnel while engaged in the performance of duties in connection with the contract. The contractor shall furnish the SUDA with documentation certifying that he has procured and Maintenance coverage to this extent as follows :

A. Workman's Compensation Insurance (Including) occupational disease covering the contractor's personnel engaged on the project/job.

B.General liability insurance (including contractual) for third party injuries, including accidental death to any person and property damage. The documentation to be furnished to the SURAT URBAN DEVELOPMENT AUTHORITY within 15 days of signing of the contract. Contractor will be responsible for insurance cover of his personnel and SUDAwill have no liability whatsoever on this account.

C.CONTRACTLABOUR (Regulation&Abolition)Act–1970:-

As per the labour act 1970, you are requested to take the labour license from the concernGovernment authority. If you will start the work without the labour license, you will only be held responsible for any situation arising than after. You are entirely responsible for labour regulations as per prevailing labour laws & other statutory requirement like provident fund, gratuity, child labour etc.

38.TERMINATION FOR UNSATISFACTORYPERFORMANCE:-

If the SUDAconsiders that the performance of the contractor is unsatisfactory or not up to the expected standard, the SUDAshall notify the contractor in writing and specify in detail the cause of dissatisfaction. The SUDAshall have the option to handover this work to other agencies at the cost and risk of the contractor and terminate this contract if the contractor fails to comply with the requisition contained in the said written notice issued by the SUDAto the contractor within 15 (Fifteen) days of the receipt thereof. Competent authority may decide, in case of unsatisfactory performance guarantee.

39. Any other details if required can be had from the office of the Executive Engineer, SURAT URBAN DEVELOPMENT AUTHORITY , Surat on request and prior to submitting the tender. No dispute at a later date shall be entertained.

40. Right to accept any or to reject any or all tenders without assigning any reason thereof is reserved by the competent authority of SUDA.

41. INSPECTION AND TESTING

a) The Contractor shall provide at all times during the progress of the work and also during the defect liability period proper means of access and required attendants to move and arrange things as directed for the purpose of inspection or assessment of the work by the SUDA or its authorized representative.

b) All Works embracing more than one activity shall be subject to examination and approval at each stage and the contractor shall give due notice in writing to the Engineer-in-Charge when each stage is ready. In default of such notice, the Engineer- in-Charge shall be entitled to appraise the quality and extent thereof.

c) No work shall be put out of view by the Contractor without the approval of the Engineer-in-Charge and the Contractor shall afford full opportunity for the examination and assessment of any work which is so considered. Similarly, no work involving pre-assessment shall be taken up without a specific authorization by the Engineer-in-Charge. The contractor shall give a notice of not less than 2 days but not more than 4 days, in any case, in writing to the Engineer-in-Charge whenever any work or equipment is intended to be covered up in the earth or in walls or otherwise to be placed beyond the reach of assessment so that the work may be inspected and verified by the Engineer-in-Charge or that the correct dimensions may be taken before being so covered up. The Engineer-in-Charge shall, without unreasonable delay,unless he considers it to be unnecessary and advises the Contractor accordingly, attend for the purpose of examining and assessing such work or materials intended to be covered up. In the event of the failure on the part of the contractor to give such notice, such work/equipment shall be uncovered, if required, by the Engineer-in- Charge at the expense and cost of the Contractor.

d) The Contractor shall uncover any part of the Works and/or make openings in or through the same as the Engineer-in-Charge may from time to time direct for his verification and shall reinstate and make good such part to the satisfaction of the Engineer-in-Charge. However If any such part has been covered up or put out of the view after being approved by the Engineer-in-Charge and is subsequently found on uncovering, to be executed in accordance with the Contract, the cost and expense of uncovering and/or making openings in or through reinstating, making good the same shall be borne by the SUDA. In any other case all such costs and expenses shall be borne by the Contractor.

42. ACTION IN CASE WORK NOT DONE AS PER SPECIFICATIONS

All works in the course of execution or executed in pursuance of the contract shall, at all times, be open and accessible to the inspection and supervision of the SUDA or its authorized representative and the contractor shall, at all times, during the usual working hours and at all other times at which reasonable notice of the visit of such representatives has been given to the contractor, either himself be present to receive orders and instructions or has a responsible agent duly accredited in writing, present for that purpose. Orders given to such agent shall be considered to have the same force as if they had been given to the Contractor himself.

If at any time, it appears to the SUDA or its authorized representative that any work has been executed with unsound, imperfect, or unskillful manner, or with inferior or grade of materials or articles or otherwise not in accordance with the contract for the execution of the work, the contractor shall, on demand in writing, which shall be made within the Project Completion Period from the SUDA specifying such work, materials or articles, notwithstanding that the same may have been passed, certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part, as the case may be, and remove the materials or articles so specified and provide materials or articles as per the terms and in accordance with the sprit of the contract, at its own expense and cost. In the event of the Contractor failing to do so within a period specified by the SUDA in its demand as aforesaid, the Contractorshall be liable to pay compensation at the same rate as for non- completion of the work in time for the default on its past.

In such case the SUDA may at its sole discretion, accept the item of work at reduced rates as applicable under the contract during the preparation of on account bills or final bill. Further, if the item is so acceptable, without detriment to the safety and utility of the item and the structure the SUDA may reject the work outright without any payment and/or get it other connected and incidental items rectified, or removed and re-executed at the risk and cost of the contractor. The decision of SUDA to be conveyed in writing in respect of the same will be final and binding on the Contractor.

43. INTERPRETATION OF CONTRACT DOCUMENTS DISCREPANCIES BETWEE INSTRUCTIONS

Should any discrepancy occur between the various instructions furnished to the contractor his agents or staff, or any doubt arises as to the meaning of any such instruction or, should there be an misunderstanding between the contractor's staff and the Engineer-in-charge's staff, the Contractor shall immediately report the matter in writing to the Engineer-in-charge whose decision thereon shall be final and conclusive and no claim for losses alleged to have been caused by such discrepancies between instructions, doubts or misunderstanding shall in any event be admissible.

44.FORCE CLOSURE OF CONTRACT OR ABANDONMENT DUE TO REDUCTION IN THE SCOPE OF WORK

If, at any time after the commencement of work, the SUDA, for any reason whatsoever, does not require the whole work as specified in the tender to be carried out, the SUDA or its authorized representative shall give a notice in writing, to that effect to the Contractor and the Contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the works in full but could not derive in consequence of such decision of the SUDA. He shall have no claim for the compensation by reason of any alteration having been made in the original specifications, drawings and instructions which may involve any curtailment, variation or increase of the work as originally contemplate

45. GUARANTEE OF WORKS AND LIABILITY FOR DAMAGES, DEFECTS ETC.

The defect liability period in respect of the works shall 6 months after completion of the work. The Contractor shall guarantee that the Material/equipment or parts thereof provided under the contract are new and free from defects in design, material and workmanship. The contractor shall also give guarantee for the satisfactory performance of the material/equipment or parts thereof provided under the contract and for the workmanship of the works executed as per the contract. This guarantee shall be valid for the duration of the defect liability period. Any defects, that may appear in the work within the defect liability period, which in theopinion of SUDA or the Engineer-in-Charge is due to defective or improper material/equipment or bad workmanship or the work not being in accordance with the drawings, specifications or instructions under the contract shall be made good and/or repairs by the Contractor at his own cost and expense.

If it is found that the performance of the Material/equipment or parts thereof are not satisfactory and that any defect in design, material and/or workmanship is found within the defect liability period, the Engineer-in-Charge shall intimate to the Contractor to that defect in writing. The Contractor shall immediately but not later than 7 days of the receipt of such intimation investigate the causes of such defects. The Contractor shall arrange to provide within a reasonable periodallthenecessaryEngineeringdesigns,materialsforthe rectification/replacement of the defective Material/equipment or parts thereof at site at his own cost and expense. If the Contractor fails to take proper corrective action to repair the defects or

otherwise to replace the Material/equipment or parts thereof to the satisfaction of the Engineer- in-Charge within a reasonable period, the SUDA may at its option after giving 15 days notice in writing, take suitable action for such rectification or replacement, as it deems necessary, at the risk and cost of the Contractor.

In the event of an emergency in the opinion of the Engineer-in-Charge, where the delay would cause serious loss or damage or in the cases of minor defects found in the designs, materials and/or workmanship, within the defect liability period, the SUDA shall however, have a sole right to take up immediately, not withstanding Clause. Above, suitable corrective action for repair or rectification or replacement as deemed necessary, through a third party chosen by the SUDA without any advance intimation to the Contractor. In such cases, the Contractor shall be intimated and shall assist and cooperate in making the repairs/rectification.

In case the defects are of such nature that the Material/equipment or parts thereof requires to be taken to the workshop of the Contractor for rectification, the same shall be taken by the Contractor at his cost and expense . In case the Contractor so desires the same shall be so dispatched at the risk and cost of the Contractor.

However in both cases, the Contractor shall furnish necessary Hypothecation Deed to the Engineer-in-Charge in respect of such Material/equipment or part thereof, and shall provide additional bank guarantee (Nationalized bank only) of amount equal to the cost of Material/equipment, as required by the Engineer-in-Charge before theMaterial/equipment, or parts thereof are removed from the site. After the necessary rectification or replacement, the Contractor shall deliver and duly install the Material/equipment or parts thereof at site at his own expense to the satisfaction of the Engineer-in-Charge. All risks in transit to and from the site shall be borne by the Contractor.

If the repairs, replacement or modifications as referred above are of such nature as may affect the efficiency of the Material/equipment or parts thereof, the SUDA shall have the right to give to the Contractor a notice in writing within one month of such repair, replacement, renewal to carry out the tests, as may be required, for the acceptance of the equipment by the Engineer–in Charge. When the defective Material/equipment or parts thereof are not repairable at site and sent to the workshop of the Contractor for necessary repairs or replacement but are essential for the operation of the facility, the Contractor shall take all the necessary steps to the satisfaction of the Engineer-in-Charge to minimize interruptions in the operation of the facility till such time the repaired equipment or parts thereof are returned back satisfactorily.

Material/Equipment or parts thereof so repaired or replaced shall have further defect liability period of 6 months from the date of acceptance, of such repair or replacement, by the Engineer-in-Charge and the contractor shall immediately arrange to extend the validity of the respective Bank Guarantee to adequately cover the extended period. Failing to supply the repaired Material/equipment with the mutually agreed time period, the bank guarantee shall be

forfeited to SUDA and the Material/equipment will be replaced by SUDA at risk and cost of contractor.

46.EQUIPMENT NEEDED FOR THE WORKS

The Contractor shall, at his own cost and expense, provide all the Material/equipment, machineries, tools, etc. required for the works.

All Material/equipment to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the Contract and the Contractor shall on the request of the Engineer-in-Charge, furnish proof, to the satisfaction of theEngineer-in-Charge, that the Material/equipment so comply.

The Engineer-in-Charge shall be entitled to have tests carried out as specified or referred to in the contract for any Material/equipment provided by the Contractor at the cost and expense of the Contractor and the Contractor shall provide at its cost and expense all facilities which the Engineer-in-Charge may require for such purpose. In case of the tests not being specified in the Contract, but are considered necessary by the Engineer-in-Charge, the Contractor shall provide all facilities and assistance required for the purpose and the charges for such tests shall be borne by the Contractor.

All Material/equipment and parts thereof shall be of such design as properly and satisfactorily function under all conditions operation. All the components or Material/equipments shall have proper factor of safety, maximum efficiency minimum wear and tear and ability to withstand in the respective environmental conditions encountered at the specific location, whether specifically mentioned in the specifications or not. Equipment shall be new, free from defects and of best quality. All the equipment shall conform to the latest revised relevant Indian International Standards. Equipment which do not conform to either Indian Standards or the International Standards accepted in India, shall require approval of the SUDA or Engineer-in-Charge by the Contractor furnishing a sample with the test certificate and performance certificates from a duly recognized test house in India .

47. SAFETY REGULATIONS

During the execution of te work, unless otherwise specified, the contractor shall at its own cost and expense provide the materials for all shoring, timbering and shuttering work necessary for the stability, safety and construction of all structures, excavations and works and shall ensure that no damage, injury or loss is caused or is likely to be caused to any person or property.

The Contractor shall be responsible to take all precautions to ensure the safety of the person or property whether on public or works site during the period of contract and shall post such look out personnel as may, in the opinion of the Engineer-in- Charge, be required.The Contractor shall assure the safety of the work and personnel and contractor shall be entirely responsible for any damage or injuries to any property or person resulting from any accident due to any reasons The Contractor must take sufficient care while moving, handling and installingmaterial/equipment,

so as not to cause any injury or damage to the persons orproperty of the SUDA or the public or other working in or around the works. In case of causing of any injury or damage, to anyperson or property as aforesaid, the costs and expense of such occurrences, including eventual loss of working hours as estimated by the SUDA, shall be borne by the Contractor. The Contractor shall also replace or repair all the damages caused to buildings or Material/equipments left at the time of the completion of the work to bring the building or Material/equipment back to the original condition.

The Contractor shall, at its cost and expense, provide all the necessary facilities such as ladders, tools n tackles, railing, platform, inspection lamps, safety ropes, etc., for providing the safe working conditions to its or sub-contractor's workmen/workers and also for the inspection of the works by the authorized officials under the contract.

In any case of dismantling or demolition or otherwise the Contractor shall take necessary care not to damage the existing structure, equipment or materials while executing the works, and any damage, if caused on account of the same, shall be rectified or repaired by the contractor at its own cost and expense in restoring the structure or materials to its original condition.

48. REMOVAL OF SITE STAFF ON THE DIRECTION OF THE ENGINEER-IN- CHARGE

The Engineer-in-Charge may require the Contractor to dismiss or remove from the site of the work any person or persons in the contractors' employment who may be found to be incompetent or misconduct(s) and the Contractor shall forthwith comply with such requirements The Contractor shall provide and employ on the site only such efficient and competent engineers, supervisors and skilled, semi-skilled and unskilled workers as are necessary for the proper supervision and timely execution of the Works. Orders / instructions given to the Contractor's Engineers/ Supervisors shall be considered to have the same force as if it had been given to the Contractorhimself. The contractor is bound to remove any of its employees from the works/ site if the said employee is not acceptable to the Engineer-in-Charge.

49. DECISIONS BY THE SMC AND ENGINEER-IN-CHARGE

It shall be accepted, like as an inseparable part of the Contract, that in matters quality of materials, workmanship, removal of improper work, interpretation of Contract, drawings and specifications, mode or procedure of carrying out the work, the decision of the SUDA shall be final and binding on the Contractor and for any technical question which may arise touching the Contract, the SUDA or Engineer-in- Charge decision shall be final and conclusive.

50. CONTRACTOR'S SITE OFFICE & AMENITIES

The responsibility for providing any accommodation, feeding and sanitary necessities for the workers employed by the Contractor shall be exclusively of the Contractor; SUDA shall not provide any site for that.

51. WATCHING AND LIGHTING

The Contractor shall at its own cost and expense provide watchmen at all the places of the work wherever deemed necessary or required by the Engineer-in-Charge. The Contractor shall also keep all open trenches, excavations or other dangerous places properly and sufficiently lighted between sunset and sunrise and shall provide and fix proper fencing, hoardings or temporary bridges to protect and assist the normal traffic. The Contractor shall also, at its own cost and expense, erect temporary fences on the sites where required by the Engineer-in-Charge.

52. EXECUTION OF THE WORKS

The civil work and the whole erection and installation work of mechanical equipments shall be done in supervision of Civil/Mechanical Supervisor/Engineer-in- charge. No work including erection/ installation shall be between 8.00 to 17.00 hours with 1.00 hour of recess in between or on Sunday or Government holidays, except with the special sanction of the Engineer in writing previously obtained, and the withholding of such sanction shall be no ground of complaint on the part of contractors of cause for compensation to them. The period within which the work has to be carried on and completed has been fixed in terms of this cause with the provision that the total number of hours of work permissible shall not exceed 48 hour in a week and in no case more than 8 hours on any working day the actual times within which the said hour shall be worked being subject to mutual arrangement with the contractors at the commencement of the work or from time to time as may be required and provided that for the one hour about mid-day exclusively of the permissible hours aforesaid for work, all works shall be stopped for raft and modes though sanction may be accorded to the contractor to work on days and at times otherwise, normally non-permissible under this contract, the contractors shall be required to bear the cost of such supervision as in the opening of the engineer-may be necessary at these times It should be distinctly understood that the granting of permission to work extra hours or to work on Sundays and Holidays will be entirely at the discretion of the Engineer and cannot be claimed by the contractors as a matter of right and the refusal to grant such permission will not be set up as a ground or for not completing the work within the contract period.

If on the other hand the Engineer requires that the work shall be proceeded with on days and at times otherwise normally non-permissible under this contract the contractors shall proceed with the work but they will not be required in such cases to bear the cost of the Municipal establishment employed at the time. A six hours work at night will be considered as equal to day's work. Such number of days and hours as may be worked under these exceptions will be takes into account in determining the contract period fixed for completion of the works.

The contractors at all times during the continuance this contract shall in all their dealings with local labour for the time being employee on the works contemplated by this contract have due

regards to all local festivals and religious or other customs and all disputes, matters and questions arising between the contractors and any of their Agents on the hand and any local labour on the other hand with respect of any matter or thing in any way connected with this contract shall be decided by the Commissioner whose decision shall be final and binding on all parties.

The contractor shall not enter upon or commence any portion of work except with the authority and instructions of the Engineer-in-Charge or of his subordinate in charge of the work failing such authority the contractor shall have no claim to ask for measurements of or payment for work.

53. ACCESS TO THE SITE

During the progress of the Work, the Contractor shall keep the site reasonably free from all unnecessary obstructions. The existing roads or water courses or pipes, electrical line and conduits shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer-in-Charge in writing.All operations necessary for the execution of work and for construction of any temporary work shall, so far as compliance with the requirements of the Contract permits, be carried on so as not to interfere unnecessarily or improperly with the convenience of the public or access to the use and occupation of public or private road, including approach roads from the main road and footpaths, and of properties whether in the possession of the SUDA or any other person / organization.

All compensation claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or internal plant piping, etc. against the Contractor or his agent or his staff shall be recoverable from the Contractor by deduction from any sums which may become due in terms of the Contract or otherwise according to Law.

54. SETTING-OUT OF WORKS

The Contractor shall be responsible for the perfect setting out of the Works and for correctness of the positions, levels, dimensions and alignment of all parts of the works. All measurements shall comply with the dimension noted on the drawings and or as directed. If at any time during the progress of work, any error appear or arise in the positions, levels, dimensions or alignments of any part of the Work, the Contractor, on being required to do so by the Engineer-in-Charge, shall at his own cost and expense rectify such errors to the satisfaction of the Engineer-in-Charge notwithstanding that he may have been assisted by the Engineer-in-Charge in setting out the same earlier.

55. CARE OF WORKS

In the event of any accident or failure occurring or being likely to occur in or on the works which, in the opinion of the Engineer-in-Charge, required immediate attention either during the work

period or the defect liability period, the Engineer-in-Charge may direct the Contractor by written notice to take necessary remedial action and if the Contractor fails to take action as directed by the Engineer-in-Charge within 7 days of such notice, the SUDA and / or the Engineer-in-Charge may, by its own workmen or employing any other agency, make the necessary repairs or precautionary works and recover the costs from the Contractor.

56. Work Permission

No work shall be done on Sunday/Holidays without the sanction in writing of the Engineer-in-Charge.

57. WORKMANSHIP

The work to be done under the contract or any part thereof shall be executed in the best and most skilled workmanship like manner, with best and approved quality of equipment and both the work and the material/equipment should conform to the particulars contained in or implied by the specifications and as referred to in the drawings or in such other additional directions, instructions and documents as may be found necessary and given time to time to the contractor during the execution of the works and to the entire satisfaction of the SUDA and the Engineer-in-Charge.

The entire work shall conform to the latest and acceptable engineering practices and shall be such as to cause minimum transfer of noise and vibration to the building structures.

58.REMOVAL OF IMPROPER WORK AND Material/EQUIPMENT

The SUDA shall have power to check and reject at any stage such work / equipment which it considers to be defective in quality or workmanship and nothing shall prevent from rejecting the materials brought to the site (i.e. materials made ready for use on works) which have been previously passed by the SUDA or the Engineer- in-charge in an un-worked condition. The Contractor shall immediately arrange to replace the defective equipment by proper and suitable equipment with the approval of the Engineer-in-Charge and carry out rework of the rejected work at his own cost and expense and to the satisfaction of the SUDA. In the event of failure on the part of the Contractor to carry out his obligations under this clause, the SUDA shall have the right to get the work done through other agencies at the risk of the Contractor and recover the cost in full from the Contractor.

All rejected Material/equipments will at once be removed from the site by the Contractor to such distances as may be desired, failing which the Engineer-in- Charge after giving three days' notice in writing may do so and recommend to the SUDA for recovering the cost of removal from the Contractor.

59. CLEARANCE OF SITE ON COMPLETION

As part of the work included in this Contract, the Contractor shall completely remove and satisfactorily dispose off all temporary works to the extent directed. He shall demolish and dispose off all temporary structure, shall remove or grade to the extent directed all embankments made for erection purposes, shall satisfactorily dispose off all rubbish resulting from the operations under this Contract and shall do all the work necessary to restore the territory embraced within the site of his operations to at least as good order and conditions as at the beginning of the work under this Contract.

No final payment in settlement of the accounts for the Works will become due and shall be made to the Contractor till, in addition to any other conditions necessary for such final payment, Site clearance has been effected by him. In the event of his failure to comply this provision within fourteen (14) days after receiving notice to that effect, such clearance may be made by the Engineer-in-Charge at the cost and expense of the Contractor. In the event, it become necessary for the Engineer-in- Charge to have the Site cleared at the cost and expense of the Contractor, the SUDA shall not be held liable for any loss or damage to the Contractor's property as may be made on the site and due to such removal there from.

60. PACKING, MARKING, PROTECTION AND DISPATCH OF EQUIPMENT

The Contractor shall be held liable for all damages or breakages to the Material/equipment due to the defective or insufficient packing as well as for corrosion due to insufficient protections.

The Contractor shall arrange for dispatch of the Material/equipment by rail/road/ship after proper packing protection. The consignments shall be dispatched after inspection or otherwise, if agreed to, on freight paid basis, irrespective of the basis of price.

61. CONTRACTOR TO MAKE FACILITIES AT SITE

The Contractor shall make temporary arrangements at his own cost and expense for any approaches/accesses required for the movement of men and materials to his working places and material yard. If directed by the Engineer-in-Charge, the Contractor shall remove and make good temporary arrangements after completion of the works.

62. Site Investigations

The contractor shall visit the project sites prior to submitting bid, carefully inspect all areas, and become acquainted with the existing conditions and work to be carried out. No dispute shall be entertained later on in this regard.

Executive Engineer
Surat Urban Development Authority
Surat.

SEAL&SIGNATUREOFTHETENDERER: -

TENDER NOTICE NO : SUDA/CB/ / 2019-20
SPECIALTERMS ANDCONDITIONS

THE FOLLOWINGSMUSTBECONSIDERD:-

1. Each tender must accompany with latest passport size photograph along with specimen signature of the contractor(s)

2. In the event of the tender being submitted by a partnership firm it must be signed separately by all partners with their latest photographs duly signed thereof. The partnership deed must also be attached with the tender.

3. The contractor(s) shall have to attach sales tax certificates with residential address evidences.
4. For contractor(s) paying royalties to the Government, the receipt of the same must be produced.

5. The successful contractor(s) shall be required to submit photographs, address and specimen signatures in duplicate at the time of executing the agreement. The agreement shall be executed by partner/ person who have signed the tender/ quotation

6. Affixpassportsizephotographintablebelow:-

Specimen signature of all partners in case of partnership agency: -

1. _____
2. _____
3. _____
4. _____

Submission of registered agreement iscompulsoryinca seofpartnership agency.

Executive Engineer
Surat Urban Development Authority
Surat.

SEAL&SIGNATUREOFTHETENDERER: -

NOTE:- PLEASE CLEARLY NOTE THAT "SPECIAL TERMS AND CONDITIONS" MUST BE RETURNEDDULYSEALED&SIGNEDALONGWITHTHETECHNICAL-BID.

TENDER NOTICE NO : SUDA/CB/ / 2019-20

CONDITIONS OF CONTRACT

CLAUSE-1 {ACTION WHEN WHOLE OF THE SECURITY DEPOSIT IS FORFEITED}

In any case in which under any clause of or clauses this contract the contractor shall have tendered himself liable to pay compensation amounting to the whole of this security deposit (whether it is paid in one sum or deducted by instalments) or in the case of abandonment of the work owing to serious illness or death of the contractor or any other causes, the Chief Executive Authority on behalf of the SUDA shall have power to adopt of the following courses, as he may deem best suited to the interest of SUDA.

A) To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Chief Executive Authority shall be conclusive evidence) and in that case that security deposit of the contractor shall stand forfeited and be absolutely at the disposal of SUDA.

B) To employ labour paid by the SUDA and to supply material to carry out the works, or any part of the work debiting, the contractor with correctness of which cost and price the certificate of Executive Engineer shall be final and conclusive against the contractor and crediting him with the value of the work done, in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract, and in that case the certificate of the Executive Engineer as to the value of the work done shall be final and conclusive against the contractor.

C) To order that the work of the contractor be in measured up and to take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to original contractor, if the whole work had been executed by him (as to the amount of which excess expenses the certificate in writing of the Executive Engineer shall be final and conclusive) be borne & paid by the original contractor shall be deducted from any money due to him by SUDA under the contract or otherwise from his security deposit or the proceeds of sale thereof, or a sufficient part thereof.

In the event of any of the above courses be adopted by the Chief Executive Authority the contractor shall have no claim to compensation for any loss sustained by him by reason of his purchased or procured any materials or entered into any engagements, or made any advances on account of or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under provision aforesaid, the contractor shall not be entitled to recover, or be paid any sum for any work thereto actually performed by him under this contract unless and until the City Engineer shall have certified in writing the performance of such work and the amount payable to him in respect thereof, and he shall only be entitled to paid the Particular so certified.

CLAUSE-2 {CONTRACTOR REMAINS LIABLE TO PAY COMPENSATION IF ACTION NOT TAKEN UNDER CLAUSE (3)}

If the progress of any particular portion of the work is unsatisfactory the Chief Executive Authority shall notwithstanding that the general progress of the work is satisfactory in accordance with clause 2, be entitled to take action under clause 3 (b) after giving the contractor 15 day's notice in writing and contractor will have no claim for compensation for any loss sustained by him owing to such action.

CLAUSE-3 {POWER TO TAKE POSSESSION OF, REQUIRE OR REMOVAL OF, OR SELL CONTRACTOR'S PLANT/ASSETS}

In any case in which any of the powers conferred upon the Chief Executive Authority by clause 3 and 4 hereof shall have become exercisable and same shall not have been exercised the non-exercise thereof shall not constitute a waiver of any of the conditions hereof such powers shall notwithstanding be exercisable in any future case default by the contractor for which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected.

In the event of the Chief Executive Authority taking action under sub-clause (a) or (c) of clause 1, he may, be he so desire to take possession of all or any tools, plant materials and stores in or upon the works, or the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work of any part thereof, paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable, at current market rates, to be certified by the Executive Engineer whose certificate thereof shall be final. In the alternative the Chief Executive Authority may by notice in writing to the contractor or his clerk of the works. Foremen or other authorised agent require him to remove such tools, plant, materials, or stores from the premises within a time specified in such notice; & in the event of the contractor failing to comply with any such requisition, the Chief Executive Authority may remove them at the contractor's expense or sell them by action or private sale at the risk and account of the contractor in all respects, and certificate of the Executive Engineer as to the expense of any such removal, and the amount of the proceeds and Extension to expense of any of any sale shall be final and time conclusive against the contractor.

CLAUSE-4 {PAYMENT AT REDUCED RATE}

The rates for several items of the work agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of works are not accepted the Engineer-in- charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills.

CLAUSE-5 {STORES SUPPLIED BY SUDA }

If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the Municipal Store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such materials and stores and the prices to be charged thereof as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control meaning or effect of the contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purpose of the contract only and the value of the full quantity of materials and stores so supplied shall be set off deducted form any sums then due, or thereafter to become due to the contractor under the contract, or otherwise or from the security deposit, or the proceeds of sale thereof shall be deposit is held in Government securities the same or a sufficient portion there of shall in that case be sold for the purpose. All material supplied to the contractor shall remain the absolute property of SUDA and shall on no account be removed from the site of the work, and shall at all times be opened to inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the Public Works Department store, if the Engineer-in-charge so requires by a notice in writing given under his hand, but the contractor shall not be entitled to return any such materials except with such consent and he shall have no claim for compensation on account of any such materials supplied to him as aforesaid but remaining unused by him or for any wastage in or damage thereto.

CLAUSE-6 {WORKS TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS ETC.}

The contractor shall execute the whole and every part of the work in the most substantial and workman like manner, and both as regards materials and in every other respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of the work during office hours, and the contractor shall, if he so requires, be entitled at his own expense to make or cause to be made copies of the specifications and of all such designs, drawings and instruction on aforesaid.

CLAUSE-7 {ALTERATION IN SPECIFICATIONS}

The Engineer-in- charge shall have Alternation in power to take any alteration in, or addition tospecifications the original specifications, drawings, designs and design not instruction that may appear to him to be necessary to invalidate or advisable during the progress of the work, and contractors. the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer- in-charge and such alteration shall not invalidate the contract and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all

respect on which he agreed to do the main work and at the same rates as are specified in the tender for the main work. And if the additional and altered work includes any class of work for which no rates are specified in this contract than such class of work shall be carried out at the rates entered in the schedule of rates of SUDA or at the rates mutually agreed upon between the Engineer-in-charge and the contractor whichever are lower if the additional or altered work for which no rate is entered in the schedule Rates for works of Rates of SUDA is ordered to be not entered in carried out before the rates are agreed upon then estimate or the contractor shall, within seven days of the schedule of date of receipt by him of the order to carry out rates of the work, inform the Engineer-in-charge of the SUDA rate which it is his intention to charge for such Corporation. class of work and if the Engineer -in- charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work, and arrange to carry it out in such manner as he may consider advisable provided always that if the contractor shall commence the work or incur any expenditure in regards thereto before the rates shall have been determined as lastly herein before mentioned, then in such case he shall only be entitled to be paid in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of a dispute, the decision of the Chief Executive Authority will be final.

Where, however, the work shall have to be executed according to the designs; drawings and specification ns recommended by the contractor and accepted by the competent authority the alteration above referred to shall within the scope of such designs drawings and specification appended to the tender.

The time limit for the completion of work shall be extended in the proportion that the increase in its cost occasioned by alterations or addition consequence of the cost of the original contract work, and the certificate of the Engineer-in-charge as to such proportion shall be conclusive.

CLAUSE-8 {NO COMPENSATION FOR ALTERATION OR RESTRICTION OF WORKS TO BE CARRIED OUT}

If at any time after the execution of the contract documents the Engineer-in-charge shall for any reason whatsoever, require the whole or any part of the work as specified in the tender to be stopped for any period or shall not require the whole or part of the work to be carried out at all or to be carried out by the contractor, he shall give notice in writing of the fact to the contractor who shall thereupon suspend or stop, the work totally or partially, as the case may be. In any such case, except as provided hereunder, the contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not so derive in consequence of the full amount of the work nor having been carried out, or on account of any loss that he may be put to on account of materials purchased or agreed to be purchased, or for unemployment of labour recruited by him. He shall not also have any claim for compensation by reason of any alteration having been made in the original specifications, drawings, designs and instructions may

involve any curtailment of the work as originals contemplated. Where which however, materials have already been purchased or agreed to be purchased by the contractor, before receipt by him of the said notice, the contractor shall be paid for such materials at the rate determined by the Engineer-in-charge, provided they are not in excess of requirements and are of approved quality and/or shall be compensated for the loss, if any that he may be put to in respect of materials agreed to be purchased by him, the amount of such compensation to be determined by the Engineer-in-charge, whose decision shall be final. If the contractor suffers any loss on account of his having to pay labour charges during the period during which to stoppage of work has been ordered under this clause the contractor shall on application be entitled to such compensation on account of labour charges as the Engineer-in-charge, whose decision shall be final, may consider reasonable, provided that the contractor shall not be entitled to any compensation on account of labour charges if, in the opinion of the Engineer-in-charge, the labour could have been employed by the contractor elsewhere for the whole or part of the period during which the stoppage of the work has been ordered as aforesaid.

CLAUSE-9

The Contractor is to cover up and protect the works from the weather, and is suspend all `wet' operations during weather which, in the executive engineer's opinion, will be detrimental to the work.

CLAUSE-10

Samples of each class of material and workmanship shall be submitted by the Contractor for the approval of Executive Engineer and after such approval these samples shall be deposited at any place the Executive Engineer may appoint and the Contractor shall be required to perform all the works of this contract in accordance with the samples.

CLAUSE-11

On completion, all work must be cleaned down; rubbish removed and the works and land cleaned of rubbish; surplus materials and other accumulations, and everything left in a clean and ordinary condition.

CLAUSE-12

The contractor shall provide, erect and maintain proper sheds and temporary buildings for the storage and protection of materials and goods and for the execution of work which may be fabricated or brought on the site.

CLAUSE-13

The contractor shall permit the execution of the work not provided for in the tender by artists; trad esman, or others engaged by the SUDA The contractor shall allow all reasonable facilities and the use of his scaffolding and water for the execution of such work, but is not required to provide any special scaffolding for the execution of such work except by special arrangement with SUDA

CLAUSE-14{ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK}

If at any time before the security deposit is refunded to the contractor, it shall appear to the Engineer -in-charge or his subordinate in charge of the work that any work has been executed with unsound imperfect, or unskilful workmanship or with materials of inferior quality; or that any materials or articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or otherwise not in accordance with the contract, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and them notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part as the case may require, or if so required shall remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost; and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the tender for every day not exceeding ten days, during which the failure so contaminate and in the event of any such failure as aforesaid the Engineer-in-charge may rectify or remove and re-execute the work or remove and replace the materials or articles complained or as the case may be at the risk and expense in all respects of the contractor, should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it; shall be within his discretion to accept the same at such reduced rates along with the appropriate penalty as the Chief Executive Authority may deem fit. The period to be counted from that date of final completion and handing over of the work to the SUDA during which the contractor is so liable for any defects in the work shall be the Defects Liability Period shown in the attached Memorandum.

CLAUSE-15 {WORK TO BE OPEN TO INSPECTION}

All works under in course of execution or executed in pursuance of the contract shall at all-time be open to the inspection and supervision of the Engineer-in-charge and his subordinates, and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions, or have a responsible agent duly accredited in writing present for that purpose. Orders given to the contractor's duly authorised agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

CLAUSE- 16 {NOTICE TO BE GIVEN BEFORE WORK IS COVERED UP}

The contractor shall give not less than five days' notice in writing to the Engineer-in- charge or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured; and correct dimensions thereof taken before the same is so covered up or placed beyond the reach of measurement any work without the

consent in writing of the Engineer- in- charge or his subordinate in charge of the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the contractor's expense, and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

CLAUSE-17 {CONTRACTOR LIABLE FOR DAMAGE DONE}

If the contractor or his workmen; or servants shall break, deface injure or destroy any part of a building in which they may be working, or any building, road, fence enclosure or grass land or cultivated ground continuous to the premises on which the work of any part thereof is being executed; or if any damage shall be done to the work for any cause whatever while if is in progress or if any imperfection become apparent in it within the Defect liability period mentioned above by Engineer- in- charge the contractor shall make good the same at his own expense, or in default the Engineer in charge may cause the same to be made good by other workmen and deduct the expenses (of which certificate of Engineer-in- charge shall be final) from any sum that may be due or thereafter became due to the contractor or from his security deposit or the proceed of sale thereof or of a sufficient portion thereof.

CLAUSE-18

The contractor shall supply at his own cost all materials plant tools, appliances implements, ladders, cordage, scaffolding and any temporary works which may be required for the proper execution of the work, in the original; altered or substituted from, and whether included in these specification or, other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter on which under these conditions he is entitle to be satisfied, or which he is entitled to require together with carriage thereof To and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurement or examination at any time and from time to time of the work or materials, Failing this the same may be provided by the Engineer-in-charge at the expense of the contractor and the expense may be deducted from any money due to the contractor under the contract, or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident; and shall also be bound to bear the expenses of every suit. Action or other legal proceedings, at law, that may be brought by any person for Injury sustained owing to negligence of the above precautions, and to pay damages and costs which may be awarded in any such suit action or proceedings, to any such person, or which may with the consent of the contractor be paid in compromising any claim by any such person.

CLAUSE-19

The contractor shall make his own arrangement for drinking water for the labour employed by him.

CLAUSE-20 {LIABILITY OF CONTRACTOR FOR ANY DAMAGE DONE IN OR OUTSIDE WORK AREA}

Compensation for all damage done intentionally or unintentionally or by contractor's labourers whether in or beyond the limits of SUDA property shall be estimated by the Engineer-in-charge or such other office as he may appoint & estimates of Engineer-in-charge subject to the decision of the Chief Executive Authority on appeal be final & the contractor shall be bound to pay the amount of the assessed compensation of demand failing which the same will be recovered from the contractor as damage from the security deposit or deducted by the Engineer-in-charge from any sum that may by due or become due from SUDA to the contractor under this contract or otherwise. The contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any person from injury sustained by him owing to negligence of precautions to prevent the spread of fire & he shall also pay any damages and cost that may be awarded by the court in consequence.

CLAUSE-21

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

CLAUSE-22

The contract shall not be assigned or subject without the written approval of the Engineer- in-charge, and if the contractor shall assign or sublet his contract or attempt to do so or become insolvent or commence any proceedings to be adjudicated an insolvent or make any composition with his creditors, or attempt to do the Engineer-in-charge may, by notice in writing rescind the contract. Also if any bribe, gratuity gift, loan, perquisite, reward or directly advantage, pecuniary or otherwise, shall either or indirectly be given, promised, or offered by the contractor, or any of his servants agents to any public officer or person in the employ of SUDA in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract the Engineer- in-charge may be notice in writing rescind the contract. In the event of contract being rescinded, the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the deposit of the SUDA & the same consequences shall ensure as if the contract had been rescinded under clause-3 hereof and in addition the contractor, shall not be entitled to recover or be paid for any work thereto for, actually performed under the contract.

CLAUSE-23

All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of Municipal SUDA without reference to the actual loss or damage sustained and whether any damage has or has not been sustained actual loss.

CLAUSE-24 {CHANGES IN THE CONSTITUTION OF FIRM TO BE NOTIFIED}

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

CLAUSE-25

All works to be executed under the control shall be executed under the directions and subject to the approval in the respects of the Executive Engineer who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

CLAUSE-26 {DECISION OF CHIEF EXECUTIVE AUTHORITY TO BE FINAL}

Except where otherwise specified in the contract decision of the Chief Executive Authority shall be final conclusive and binding on all parties to the contract upon all questions relating to the meaning of the specification designs, drawings and instructions here in before mentioned and as to the quality of workmanship, or materials used on the work, or as to any other question, claim, right, matter, or thing whatsoever in any way arising or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions, or otherwise concerning the works or the execution or failure to execute the same, whether arising, during the progress of the work or after the completion or abandonment thereof.

CLAUSE-27

All quarry fees and royalties shall be paid by the contractor All taxes shall also be paid contractor according to the SUDA rules in force at the time and no refund shall be given Certificate for refund of quarry fees and royalties in admissible under existing rules shall be given by the SUDA to the contractor after successful completion of the contract. For the levy of water charges for construction work, please see the attached Memorandum.

CLAUSE-28 {COMPENSATION UNDER WORKMAN'S COMPENSATION ACT}

The contractor shall be responsible for and shall pay any compensation to his workmen payable under the workmen's Compensation Act 1923 (VIII of 1923) or any statutory modification thereof for injuries caused to workmen.

CLAUSE-29 {CLAIM FOR QUANTITIES OF WORK ENTERED IN TENDER ESTIMATE}

Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in the tender of estimate.

CLAUSE-30 {CLAIM FOR COMPENSATION FOR DELAY IN STARTING THE WORK}

No compensation shall be allowed for any delay caused in the starting of the work on account of any acquisition of land and in the case of clearance work, for any delay in accordance to estimate.

CLAUSE-31 {CLAIM FOR COMPENSATION FOR DELAY IN EXECUTION OF WORK}

No compensation shall be allowed for any delay in execution of the work on account of water standing in borrow-pits or compartments. The rates are inclusive for hard or cracked soil, excavation in mud, soil

water or water standing in borrow-pits, and no claim for an extra rate shall be entertained, unless otherwise expressly specified.

CLAUSE-32

The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer-in-charge or of his subordinate in charge of the work failing such authority the contractor shall have no claim to ask for measurements for payment of work.

CLAUSE-33

Disputes if any shall be discussed and mutually settled and in case of disagreement the same shall be referred to Chief Executive Authority. After referring to Chief Executive Authority said dispute is not solved, the same shall be referred to the court subject to Surat Jurisdiction only.

Executive Engineer,
Surat Urban Development Authority
Surat

SEAL & SIGNATURE OF THE TENDERER: -

TENDER NOTICE NO : SUDA/CB/ / 2019-20

TECHNICAL/ SERVICE PROFILEPERTAINING TOTENDERER

1	Name of the firm	:	
2	Address with name of contact person	:	
	Head Office	:	
	MainOfficeinGujarat	:	
	Office NearesttoSurat	:	
	Telephone No.	:	
	Telex / FaxNo.	:	
	E-mail Address(ifany)	:	
	PANNumber (Pleaseattachattested copy)	:	
	Registration No:- (Please attach attested copy of Authorisation Certificate)	:	
3	Givedetailsabout yourservice network	:	
4	Give details of Technical personnel, list of tool/tackles,instrument possessedby you	:	
5	ContractperiodfromthedateofConfirmedorder.	:	
6	Rates quoted are inclusive of all taxes/ duties, levies, work contract tax, packing/ forwarding, transportation, freight, watch & ward, insurance etc. includingServicetax.		:**YES**
7	Portion or percentage of the work tenderer proposes to sub–contract (if any), in case the contract isawarded.	:	

8	Forhowmanyyearshastheorganisationbeenin business underitspresentname&style?	:
9	Haveyouevernotcompletedtheworkawarded to you? (If so give the name of project and reasonsfornotcompletingtheworkonseparate page.)	:
10	SatisfactoryWorkCompletionCertificatesgivenby renowned clients	:**Attached**
11	ElectricalContractorsLicenceissuedbyGovt.of Gujarat	:**Attached**
12	Detailsof yourlatest similar job.	
	(i) Nameofthefirm	:
	(ii) Actual Timetaken	:
	(iii) Tendercost(Rs.)	:

Note:-

(i) Filling ofeachand every columnis must.

(ii) PLEASECLEARLYNOTETHAT"TECHNICAL/SERVICEPROFILEPERTAININGTOTENDERER"MUST BERETURNEDDULYSEALED&SIGNEDALONGWITHTHETECHNICAL-BID.

SEAL&SIGNATUREOFTHETENDERER:

TENDER NOTICE NO : SUDA/CB/ / 2019-20

ANNEXURE:I

GUARANTEED TECHNICALPARTICULARS

Sr.No.	Parameters	GuaranteedValue (150W HPSVEquivalent)	GuaranteedValue (250W HPSVEquivalent)
(1)	LEDRatedOperatingCurrent(mA)		
(2)	Total LEDstobeUsedperLuminary		
(3)	InitialOutputofSystem(includingall losses) Lumen		
(4)	CorrelatedColourTemperature	Min(˚K) Max(˚K)	
(5)	ColourRenderingIndex(min.)		
(6)	TotalPowerinput ofLuminary (Including DriverLoss)		

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATUREOF LUMINAIREMANUFACTURER:

ANNEXURE:II

GeneralData/Details of Luminary

Sr.No.	Description	Data/Detail	Data/Detail
		(150W HPSV Equivalent)	**(250W HPSV Equivalent)**
1.	Luminarymanufacturer		
2.	Luminarymodel name		
3.	RatedInputof LEDStreetlight luminary		
4.	Initiallumenoutput		
5.	Lumenoutput(asperLM79 report, mentioningcurrentin mA)		
6.	Lumendeprecation(L70 mentioning temperaturein °C and currentinmA)		
7.	Correlatedcolourtemperature (CCT)		
8.	Colourrenderingindex (CRI)		
9.	MaterialofConstruction:- Luminary HeatSink Diffuser/Lens		
10.	Dimension		
11.	Weight		

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATUREOF LUMINAIREMANUFACTURER

ANNEXURE:III

Sr.No.	Description	Data/Detail	Data/Detail
		(150W HPSV Equivalent)	**(250W HPSV Equivalent)**
1.	Voltagerangeorratingonsingle phase AC		
2.	Ampererangeorrating		
3.	Frequencyrange		
4.	Powerfactor		
5.	Total harmonicdistortion		
6.	Workinghumidity		
7.	Workingtemperature		
8.	Conformity with IP-65 Fixtures rating		
9.	Electrical connector		
10.	SurgeVoltage Levelin kV		

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER

TENDER NOTICE NO : SUDA/CB/ /2019-20
ANNEXURE:IV

Sr. No.	Description	Data/Detail	Data/Detail
		(150W HPSV Equivalent)	**(250W HPSV Equivalent)**
1.	Name of the LED chip manufacturer		
2.	LED chip model name and number		
3.	LM80 reportfromtheLED chip manufacturer on the lumen depreciationcharacteristicsof the specificLED chip employedinthe proposed luminary product		
4.	Junctiontemperature(°C)		
5.	LEDLife		
6.	Informationondriversemployed intheproposedluminary.		
	i. Nameofthemanufacturer		
	ii. Modelnameandnumber		
	iii. DriverCurrent(mA)		
	iv. LEDDrivershallCutoffat 310V+/-10V		
	v. ExpectedlifetimeoftheLED driverused intheproposed luminary		
	vi. Estimated cost of driver replacement by your company, including component and installation cost		

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATUREOF LUMINAIREMANUFACTURER:

TENDER NOTICE NO : SUDA/CB/ /2019-20

ANNEXURE:V
PhotometricTest Results/Details

Sr. No.	Description	Data/Detail	Data/Detail
		150W HPSV Equivalent)	**(250W HPSV Equivalent)**
1.	Photometric modelling results, withinaLM79 report,from an independent accredited laboratory showing generic candlepower traces andisofoot candleplots fortheproposed luminary product.		
2.	Photometricinformation,data anddiagrams thatmodel the luminance flux distribution of the proposed luminary referencingthe site characteristics.TheBidder shouldconsider the following during themodellingexercise.		

Polarcurves:-

Preferreddistributionofilluminationoftheselightluminariesshallbeattachedwiththe technical bid.

SEAL&SIGNATUREOFTENDERER:-

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

TENDER NOTICE NO : SUDA/CB//2019-20

ANNEXURE:VI(A)(For bidder)

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s_____nor any of its constituent partners have abandoned any work in India nor any contract awarded to us for such works has been rescinded during last five years, prior to the date of this bid.
3. The undersigned hereby authorize(S) and request (s) any bank, person, authorities, government or public limited institutions, firm or SUDA to furnish pertinent information deemed necessary and requested by the SUDA to verify our statements or our competence and general reputation.
4. The undersigned understands and agreed that further qualifying information may be requested, and agrees to furnish any such information at the request of the SUDA
5. The SUDA and its authorized representative are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Affidavit will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in the tender or with regard to the resources, experience and competence of the Applicant.
6. My/our offer shall not be considered in case of fake/forged document(s) found during verification at any stage or at any stage of contract. I/We are agreed to whatever action (s) taken by competent authority of SUDA in the aforesaid circumstances such as forfeiture of security deposit and debarring from participation in future tenders for the period /years as deemed fit by the SUDA and informing the same to all other state /central level Government/semi government organizations.

_____

Signedbytheauthorisedsignatoryofthefirm

_____

Titleoftheoffice

_____

Nameofthefirm

_____

Date

Note: The affidavit format as indicated above to be furnished on non judicial stamp paper of Rs. 100

TENDER NOTICE NO : SUDA/CB/ /2019-20

ANNEXURE:VI (B)(For LEDManufacturer)

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither ourfirm M/s_____nor any of its constituent partners have abandoned any work in India nor any contract awarded to us for such works has been rescinded during last five years, prior to the date of this bid.
3. The undersigned hereby authorize(S) and request (s) any bank, person, authorities, government or public limited institutions, firm or SUDA to furnish pertinent information deemed necessary and requested by the SUDA to verify our statements or our competence and general reputation.
4. The undersigned understands and agreed that further qualifying information may be requested, and agrees to furnish any such information at the request of the SUDA.
5. The SUDA and its authorized representative are hereby authorized to conduct any inquiries or investigations to verify the statements, documents, and information submitted in connection with this application and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Affidavit will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and requested by you to verify statements and information provided in the tender or with regard to the resources, experience and competence of the Applicant.
6. Our company will provide full technical support & guidance to bidder during the contract period
7. My/our offer/make shall not be considered in case of fake/forged document(s) found during verification at any stage or at any stage of contract. I/We are agreed to whatever action (s) taken by competent authority of SUDA in the aforesaid circumstances such as forfeiture of security deposit and debarring from participation in future tenders for the period /years as deemed fit by the SUDA and informing the same to all other state /central level Government/semi government organizations.

_____
Signedbytheauthorisedsignatoryofthefirm

_____
Titleoftheoffice

_____
Nameofthefirm

_____
Date

Note: The affidavit format as indicated above to be furnished on non judicial stamp paper of Rs. 100

ANNEXURE:VII

(The Undertaking as per following format on non judicial stamp paper of Rs. 100 is to be furnished by contractor when asked by SUDA after opening of tenders/Price bid.)

Nameof Work: (1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50 KM) (2)Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area.(Length:-2.10 KM) (3) Remaning portion between villsges bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)

Respected Sir,

Wehadparticipatedforthe abovementionedwork and wewerequalifiedforthe criteria mentionedin thesubjected workstender.

Uponaskedby SURAT URBAN DEVELOPMENT AUTHORITY ,we herebygiveourconsentwiththis undertakingtocarryoutandexecutetheworksofSITCofstreetlightLEDSequivalentto150W&250WHPSValongwithGIpoles,bracketsetc.onvariousnewTProadsofSuratcityonunitratecontract basis,if thesame isawarded tous ataunitratefixed bySUDA

Weherebyagree and abideourselves and assure SURAT URBAN DEVELOPMENT AUTHORITY that we willnotdeny to carryoutand execute the workifthe same is awarded to us bythe competent authorityofSURAT URBAN DEVELOPMENT AUTHORITY atabovementionedratesandtermsmentionedin the subjected work's tender, failing which, competent authority of SUDA maytake penalty actionslikedisqualifyingordebarringus forfutureworksof SURAT URBAN DEVELOPMENT AUTHORITY fortheperiod asdecidedby SURAT URBAN DEVELOPMENT AUTHORITY upon their discretion,oranyother action asdecided bycompetent authorityof SURAT URBAN DEVELOPMENT AUTHORITY .

This undertaking will remain in force up to ____.

SignandStamp of Contractor.

TENDER NOTICE NO : SUDA/CB//2019-20
ANNEXURE:VIII
Detailsof Technicalstaffwithtenderer

Sr. No.	Nameofpersonnel	Qualification	TotalExperience	Whoisproposedtobe posted forthiswork
1	2	3	4	5
1				
2				
3				
4				
5				

SEAL&SIGNATURE OFTHE TENDERER:

Place :

Date :

TENDER NOTICE NO : SUDA/CB//2019-20
ANNEXURE:IX

Listoftools,plantsandequipmentswithtenderer(Formataspertenderer'schoice)

TENDER NOTICE NO : SUDA/CB/ /2019-20

Sr.No.	Work Details	
	(1) Supply installation and Commissioning of Street Light Poles With LED Luminaries on kathodara bus-stand to pasodara gam chehar mataji mandir at Pasodara in suda area (Length:-1.50 KM) (2)Supply installation and Commissioning of Street Light Poles With LED Luminaries on Om residency to sarthana under khadsad boundry in suda area.(Length:-2.10 KM)	
1	Length	3600 Mt.
2	Road width	5.5 to 7.0 Mt
3	Direction	Only on single side on road edge.

Sr.No.	Work Details	
	(3) Remaning portion between villsges bhatha and ichhapor on pal hazira road (Length :- 1.60 KM)	
1	Length	1600 Mt.
2	Road width	15 Mt.
3	Direction	In Between divider portion

TENDER NOTICE NO : SUDA/CB/ /2019-20

ANNEXURE:X-1

SETCofStreetlightOutdoor LEDLuminarieson7.5m/5.5 m Wide RoadinvariousAreas ofSUDA

AverageIlluminationLevel: **8lx**,UniformityFactor:**0.4**& TransverseUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of theitems mustbementionedwhereit isn't specified)/TechnicalDetails
1	GIOctagonalPole	6Mtr.
2	SingleArmBracket	0to2Mtr.
3	ProposedLED Luminary(make&modelalongwith other details)	
4	AverageSpanbetweentwopoles(m)	22Mtr.
5	InputPower(W)atRatedVoltage 230V,50Hz ~	
6	MountingHeightof Luminaryw.r.t.toRoadSurface(m) {shouldnotbemorethan**12m**)	
7	TiltAngleofLuminarywrttoRoadSurface	0^o to15^o
8	OverallMaintenanceFactorofLuminaryincludingLED lamp lumenmaintenance(Should notbe**>0.85**)	Max0.85
9	Average DesignedIlluminationLevel(lx) {min**15.0**}	
10	Uniformity Factor(Designed){min**0.40**}	
11	TransverseUniformityRatio(Designed){min**0.33**}	

TENDER NOTICE NO : SUDA/CB/ /2019-20

ANNEXURE:X

SETCofStreetlightOutdoor LEDLuminarieson15m Wide RoadinvariousAreas ofSUDA

AverageIlluminationLevel:**30lx**, UniformityFactor:**0.4**& TransverseUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of theitems mustbementionedwhereit isn't specified)/TechnicalDetails
1	GIOctagonalPole	8Mtr.
2	SingleArmBracket	0to2Mtr.
3	ProposedLED Luminary(make&modelalongwith other details)	
4	AverageSpanbetweentwopoles(m)	23 Mtr.
5	InputPower(W)atRatedVoltage 230V,50Hz ~	
6	MountingHeightof Luminaryw.r.t.toRoadSurface(m) {shouldnotbemorethan**12m**)	
7	TiltAngleofLuminarywrttoRoadSurface	0^o to15^o
8	OverallMaintenanceFactorofLuminaryincludingLED lamp lumenmaintenance(Should notbe**>0.85**)	Max0.85
9	Average DesignedIlluminationLevel(lx) {min**15.0**}	
10	Uniformity Factor(Designed){min**0.40**}	
11	TransverseUniformityRatio(Designed){min**0.33**}	

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

ANNEXURE:XI

SETCofStreetlightOutdoor LEDLuminarieson18m Wide RoadinvariousAreas ofSUDA

AverageIlluminationLevel:**30lx**, UniformityFactor:**0.4**& TransverseUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of the items must bementionedwhereitisn'tspecified)/TechnicalDetails
1	GIOctagonal Pole	10Mtr.
2	SingleArmBracket	0to2Mtr.
3	ProposedLEDLuminary(make&model alongwithotherdetails)	
4	AverageSpanbetweentwopoles(m)	30Mtr.
5	InputPower(W)at RatedVoltage230V,50Hz ~	
6	MountingHeightof Luminary w.r.t.toRoadSurface(m){shouldnot bemorethan**12 m**)	
7	TiltAngleofLuminarywrtto RoadSurface	0^{o} to15^{o}
8	OverallMaintenanceFactorof LuminaryincludingLEDlamp lumen maintenance(Shouldnot be**>0.85**)	Max0.85
9	AverageDesignedIlluminationLevel (lx) {min**15.0**}	
10	UniformityFactor(Designed){min**0.40**}	
11	TransverseUniformityRatio(Designed){min**0.33**}	

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

ANNEXURE:XII

SETCofStreetlightOutdoor LEDLuminarieson18m Wide RoadinvariousAreas ofSUDA

AverageIlluminationLevel:**30lx**, UniformityFactor:**0.4**& TransverseUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of the itemsmust be mentionedwhereitisn'tspecified)/TechnicalDetails
1	GIOctagonal Pole	8Mtr.
2	DoubleArmBracket	0to2Mtr.
3	ProposedLEDLuminary(make&model alongwithother details)	
4	AverageSpanbetweentwopoles(m)	30Mtr.
5	InputPower(W)at RatedVoltage230V,50Hz ~	
6	MountingHeightof Luminary wrttoRoadSurface(m){shouldnot bemorethan**12 m**)	
7	TiltAngleofLuminarywrtto RoadSurface	0^{o} to15^{o}
8	OverallMaintenanceFactorof LuminaryincludingLEDlamp lumen maintenance(Shouldnot be**>0.85**)	Max0.85
9	AverageDesignedIlluminationLevel (lx) {min**15.0**}	
10	UniformityFactor(Designed){min**0.40**}	
11	TransverseUniformityRatio(Designed){min**0.33**}	

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

ANNEXURE:XIII

SETCofStreetlightOutdoor LEDLuminarieson24m Wide RoadinvariousAreas ofSUDA

AverageIllumination Level:**30lx**, UniformityFactor:**0.4**& TransverseUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of the itemsmust be mentionedwhereitisn'tspecified)/TechnicalDetails
1	GIOctagonal Pole	10Mtr.
2	DoubleArmBracket	0to2Mtr.
3	ProposedLEDLuminary(make&model alongwithother details)	
4	AverageSpanbetweentwopoles(m)	30Mtr.
5	InputPower(W)at RatedVoltage230V,50Hz ~	
6	MountingHeightof Luminary wrttoRoadSurface(m){shouldnot bemorethan**12 m**)	
7	TiltAngleofLuminarywrtto RoadSurface	0^{o} to15^{o}
8	OverallMaintenanceFactorof LuminaryincludingLEDlamp lumen maintenance(Shouldnotbe**>0.85**)	Max0.85
9	AverageDesignedIlluminationLevel (lx) {min**15.0**}	
10	UniformityFactor(Designed){min**0.40**}	
11	TransverseUniformityRatio(Designed){min**0.33**}	

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

ANNEXURE:XIV

SETCofStreetlightOutdoor LEDLuminarieson30m Wide RoadinvariousAreas ofSUDA

AverageIlluminationLevel:**30lx** (MainCarriageWay),>=**15lx**(ServiceRoad) UniformityFactor: **0.4** &TransversesUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of theitemsmustbe mentionedwhereit isn'tspecified)/Technical Details
1	GIOctagonal Pole	10Mtr.
2	DoubleArmBracket	0to2Mtr.
3	ProposedLEDLuminary(make&model alongwith other details)	
4	InputPower(W)at RatedVoltage230V,50Hz ~	
5	AverageSpanbetweentwopoles(m)	35Mtr.
6	MountingHeightof Luminary wrttoRoadSurface(m) {shouldnotbemorethan**12 m**)	
7	TiltAngleofLuminarywrtto RoadSurface	0^{o} to15^{o}
8	OverallMaintenanceFactorof LuminaryincludingLED lamp lumenmaintenance(Shouldnot be**>0.85**)	Max0.85
9	AverageDesignedIlluminationLevel (lx) {min**30.0**}[**MainCarriageWay**]	
10	UniformityFactor(Designed){min**0.40**}[**Main Carriage Way**]	
11	TransverseUniformityRatio(Designed){min**0.33**}[**Main CarriageWay**]	
12	AverageDesignedIlluminationLevel (lx) {min**15.0**}[**Service Road**]	
13	UniformityFactor(Designed){min**0.3**}[**ServiceRoad**]	
14	TransverseUniformityRatio(Designed)[**ServiceRoad**]	

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

ANNEXURE:XV

SETCofStreetlightOutdoor LEDLuminarieson36m Wide RoadinvariousAreas ofSUDA

AverageIlluminationLevel:**30lx** (MainCarriageWay),>=**15lx**(ServiceRoad)Uniformity Factor:**0.4** & TransverseUniformityRatio:**0.33**

Sr.No.	Item Descriptionin Short	ProposedDetails of OfferedItem (Size of theitemsmustbe mentionedwhereit isn'tspecified)/Technical Details
1	GIOctagonal Pole	11Mtr.
2	DoubleArmBracket	0to2Mtr.
3	ProposedLEDLuminary(make&model alongwith other details)	
4	InputPower(W)at RatedVoltage230V,50Hz ~	
5	AverageSpanbetweentwopoles(m)	35Mtr.
6	MountingHeightof Luminary wrttoRoadSurface(m) {shouldnotbemorethan**12 m**)	
7	TiltAngleofLuminarywrtto RoadSurface	0^{o} to15^{o}
8	OverallMaintenanceFactorof LuminaryincludingLED lamplumenmaintenance(Shouldnotbe**>0.85**)	Max0.85
9	AverageDesignedIlluminationLevel (lx) {min**30.0**}[**MainCarriageWay**]	
10	UniformityFactor(Designed){min**0.40**}[**Main Carriage Way**]	
11	TransverseUniformityRatio(Designed){min**0.33**}[**Main CarriageWay**]	
12	AverageDesignedIlluminationLevel (lx) {min**15.0**}[**Service Road**]	
13	UniformityFactor(Designed){min**0.3**}[**ServiceRoad**]	
14	TransverseUniformityRatio(Designed)[**ServiceRoad**]	

SEAL&SIGNATUREOFTENDERER:

SEAL&SIGNATURE OF LUMINAIREMANUFACTURER:

FIXED &PERFORMANCEPARAMETERS

Illumination,Efficacy and Input PowersofLED Luminaries

Sr. No.	Parameters	RoadWidth					
		150WHPSVEQ	150WHPSVEQ		150WHPSVEQ	250WHPSVEQ	250WHPSVEQ
		5.5 / 7 m	18 m		24 m	30 m MainCarriageWay	36 m MainCarriage
1	Arrangement	Side	Side	Central	Central	Central	Central
2	**Required**AverageIlluminationLevel	8 lx	30 lx	30 lx	30 lx	30lx	30lx
3	**Required**Min. UniformityRatio (E_{min}/E_{avg})	0.4	0.4	0.4	0.4	0.4	0.4
4	**Required**Min. TransverseUniformityRatio (E_{min}/E_{max})	0.33	0.33	0.33	0.33	0.33	0.33
5	**Designed**AverageIlluminationLevel@ maintenancefactorof**0.85**	15.0lx	15.0lx	15.0lx	15.0lx	30.0lx	30.0lx
6	**Designed**Min. Uniformity Ratio (Emin/Eavg)	0.40	0.40	0.40	0.40	0.40	0.40
7	**Designed**Min. TransverseUniformityRatio (Emin/Emax)	0.33	0.33	0.33	0.33	0.33	0.33
8	**Measured** Min. Average Illumination Level (basedonthemaintenancefactorof**0.85**)	**17.2**	**17.2**	**17.2**	**17.2**	**34.3**	**34.3**
9	TiltAngle(wrttoroadsurface)	0°to15°	0°to15°	0°to15°	0°to15°	0°to15°	0°to15°
10	Initialefficacy ofluminaries	>80lm/W	>80lm/W	>80lm/W	>80lm/W	>80lm/W	>80lm/W
11	EfficacyofLEDChip	≥120lm/W	≥120lm/W	≥120lm/W	≥120lm/W	≥120lm/W	≥120lm/W
13	IlluminationRegulation	**<5%(wrtT_a&LineVoltage**					

Note: Aboveperformanceparameterand fixedparameters(**2,3and4**)shallbe**proved duringonsite testing**.However,averageilluminationlevel shouldbe be min.ofRequiredAverageIlluminationLevel/Maintenance Factor(max.0.85)X0.97