Press Notice for Publishing Newspaper

NOTICE INVITING e-TENDER

The Superintending Engineer, University Works Department, GGSIPU, Sector 16 C, Dwarka invites on behalf of Guru Gobind Singh Indraprastha University online Item rate tenders for following work(s):-

Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi.

Sub Head: Operation and Maintenance of STP.

NIT No: 14/SE/UWD/Elect/2019-20

Estimated Cost: Rs. 16,03,194/-, Time of completion: 12 Months, EMD: Rs 32,064/-

The tender forms and other details can be obtained from website http://govtprocurement.delhi.gov.in and www.ipu.ac.in. Last date of submission of bids is 23/09/2019.

SE/UWD

Notice Inviting e-Tender

The Superintending Engineer, University Works Department, on behalf of the GGSIPU invites online Item rate tender from eligible agencies dealing in operation and maintenance of sewage treatment plant fulfilling the set eligibility criteria bid through e-procurement portal for the following work(s):

S. No.	NIT no.	Name of work& Location	Estimated cost put to bid	Earnest Money	Period of Completion	Last date & time of online submission of bid, Submission of EMD	Time & date of opening of bid
1	2	3	4	5	6	7	8
1	14/SE/UWD/Elect/2019-20	Name of work: RMO GGSIP University, Dwarka Campus, New Delhi Sub Head: Operation and Maintenance of STP.	Rs.16,03,194/-	Rs. 32,064/-	12 months	Upto 23/09/2019 15:00 hrs	Upto 23/09/2019 15:30 hrs

- 1. The works involves 'Operation and Maintenance of STP.'.
- 2. The firm/agency who fulfill following criteria is eligible to apply: Eligibility Criteria:
 - a) Should have satisfactorily completed one similar work of value Rs. 12,82,555/- or two similar works of each of value Rs. 9,61,916/-or three similar work of each of value of Rs. 6,41,278/- in last seven years ending last day of receipt of tender. Similar work shall mean Annual operation and maintenance of sewage treatment plant of minimum 200 KLD in state/central Govt. Department, state/central PSU/Autonomous body, State/Central Educational Institution, Private entity.

Note:-

- Performance certificate issued by client at the rank of Executive Engineer or equivalent or higher to be submitted in support of past experience. Only relevant performance certificates must be submitted.
- ii) Experience in private entity must be supported by proof of payment in form of Form-16 issued by private entity or Form 26AS showing payment received or certification by Chartered Accountant clearly mentioning payment received for the work.
- iii) The value of completed work shall be brought to the current level by enhancing the completed value @ 7% per annum at sample rate upto the last date of receipt of tender.

- b) Certificate of Performance Certificate and Form 26AS etc. (if required).
- c) Should have Valid PAN Card
- d) Should have valid GST Registration.
- e) Should have filed GST return upto date.
- f) Copy of EPF registration
- g) Copy of ESIC registration
- 3. Information and Instructions for bidders posted on website shall form part of bid document.
- 4. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website www.govtprocurement.delhi.gov.in free of cost.
- 5. But the bid can only be submitted after uploading the mandatory scanned documents as below point no. 9.
- 6. On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
- 7. Contractor can upload documents in the form of JPG format and PDF format.
- 8. Contractor must ensure to quote rate of each item.

Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

9. List of Documents to be scanned and uploaded within the period of bid submission:

- 1. Copy of EMD or receipt with UTR number in favour of Registrar, GGSIPU.
- 2. Self attested Certificate of Performance Certificate and Form 26AS etc. (if required).
- 3. Self attested copy of valid GST Registration Certificate.
- 4. Self attested copy of PAN Card.
- 5. Self attested copy of GST return filed up to date.
- 6. Self attested copy of Registration with ESIC.
- 7. Self attested copy of Registration with EPF.

SE/UWD

INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE

- 1. Information and instructions for Contractors will form part of NIT.
- 2. The Bid Document as uploaded can be viewed and downloaded free of cost by anyone including intending bidder. But the bid can only be submitted after uploading the mandatory scanned documents.
- 3. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
- 4. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
- 5. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
- 6. On opening date, the contractor can login and see the bid opening process.
- 7. Contractor can upload documents in the form of **JPG** format and **PDF** format.
- 8. It is mandatory to upload scanned copies of all the documents as stipulated in the bid document. If such document is not uploaded his bid will become invalid and shall be rejected.
- 9. If the contractor is found ineligible after opening of bids, his bid shall become invalid and shall be rejected.
- 10. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the contractor the bid shall become invalid and shall be rejected.
- 11. Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in pink colour and the moment rate is entered, it turns sky blue.
 - In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0".
 - Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).
- 12. **Payment of cost of Tender documents:-** The collection of cost of Tender documents is dispensed away with, as there is no physical supply of tender documents and also to have absolute anonymity of the bidders participating in e-procurement solution. The bidders

can view/download the tender documents, from the www.govtprocurement.delhi.gov.in.

- 13. **Submission of bids**: The bidders who are desirous of participating in "e" procurement shall submit their price bids in the standard formats prescribed in the Tender documents, displayed at www.govtprocurement.delhi.gov.in. The bidder should upload the scanned copies of all the relevant certificates, documents etc., on the www.govtprocurement.delhi.gov.in in support of their price bids. The bidder shall sign on all the statements, documents, certificates uploaded by him, owning responsibility for their correctness/authenticity.
- 14. **Payment of Bid Security** (**Earnest Money Deposit**): The EMD shall be in the form of Pay Order/FDR of a scheduled bank issued in favour of Registrar, GGSIPU, New Delhi have to be deposited. 50% of earnest money or Rs.20 lakh, whichever is less, will have to be deposited in the shape prescribed above and balance amount of earnest money can be accepted in the form of Bank Guarantee issued by a scheduled bank.

Zerox copy of the DD/Pay Order/FDR is to be scanned and uploaded alongwith the Bid, and the original Pay Order/FDR shall be sent to the office of EE, UWD so as to reach before the date and time mentioned in NIT. Failure to furnish the original DD/Pay Order/FDR as EMD and other documents before the date and time mentioned in NIT will entail rejection of bids.

- 15. **Price Bid Opening:-** The Price Bids will be opened online by the Superintending Engineer, UWD at the specified date & time and the result will be displayed on the www.govtprocurement.delhi.gov.in which can be seen by all the bidders who participated in the tenders.
- 16. **Processing of Tenders**: The concerned officer/officers will evaluate and process the tenders as done in the conventional tenders and will communicate the decision to the bidder online.
- 17. **Participation of Bidders at the time of opening of bids**: Bidders have two options to participate in tendering process at the time of opening of Bids:
 - i) Bidders can come to the place of opening of bids (electronically) as done in the conventional tender process.
 - ii) Bidders can see the process online.
- 18. **Signing of agreement:** After the award of the contract, an agreement shall be signed as done in conventional tenders.



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY

Tender Document

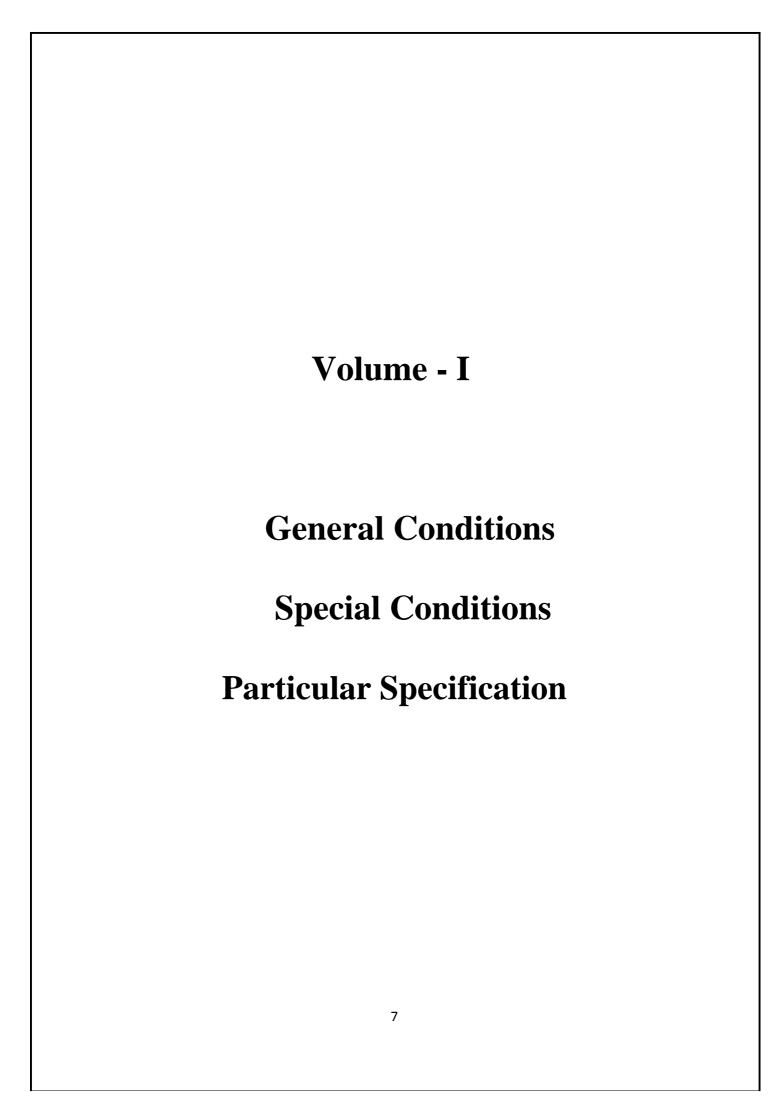
Name of Work: RMO GGSIP University, Dwarka

Campus, New Delhi

Sub Head: Operation and Maintenance of STP.

Superintending Engineer University Works Department Ground Floor, Library Block, GGSIPU, Sector- 16C, Dwarka, New Delhi – 110078

Contact: 25302291



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Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Operation and Maintenance of STP.

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Notice Inviting e-Tender

FORM-6

Online Item rate tender from eligible agencies dealing in operation and maintenance of sewage treatment plant fulfilling the set eligibility criteria bid through e-procurement portal for the following work(s):

Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Operation and Maintenance of STP.

The agencies dealing in operation & maintenance of STP should be valid on the last date of submission of tenders. In case the last date of submission of tender is extended, the enlistment of contractor should be valid on the original date of submission of tenders.

1. The work is estimated to cost **Rs.16,03,194/-**This estimate, however, is given merely as a rough guide. Intending bidder is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority.

Eligibility Criteria:-

a) Should have satisfactorily completed one similar work of value Rs. 12,82,555/- or two similar works of each of value Rs. 9,61,916/-or three similar work of each of value of Rs. 6,41,278/- in last seven years ending last day of receipt of tender. Similar work shall mean Annual operation and maintenance of sewage treatment plant of minimum 200 KLD in state/central Govt. Department, state/central PSU/Autonomous body, State/Central Educational Institution, Private entity.

Note:-

- i. Performance certificate issued by client at the rank of Executive Engineer or equivalent or higher to be submitted in support of past experience. Only relevant performance certificates must be submitted.
- ii. Experience in private entity must be supported by proof of payment in form of Form-16 issued by private entity or Form 26AS showing payment received or certification by Chartered Accountant clearly mentioning payment received for the work.
- iii. The value of completed work shall be brought to the current level by enhancing the completed value @ 7% per annum at sample rate upto the last date of receipt of tender.
 - b) Certificate of Performance Certificate and Form 26AS etc. (if required).
 - c) Should have Valid PAN Card
 - d) Should have valid GST Registration.
 - e) Should have filed GST return upto date.
 - f) Copy of EPF registration
 - g) Copy of ESIC registration.
- 2. Agreement shall be drawn with the successful tenderer on prescribed Form No. CPWD 8 which is available as a Govt. of India Publication. Tenderer shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
- 3. The time allowed for carrying out the work will be **12 months** from the date of start as defined in Schedule "F" or from the 1st date of handing over of the site, whichever is later, in accordance with the phasing, if any, as indicated in the tender documents.
- 4. The site for the work is available.
- 5. Tender documents consisting of plans, specifications, the schedule of quantities of the various types of items to be executed and the set of terms and conditions of contract to be complied with and other necessary documents except Standard General Conditions Of Contract Form can be seen from website www.govtprocurement.delhi.gov.in free of cost.
- 6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.

- 7. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.
- 8. When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
- 9. Earnest money deposit amounting to **Rs. 32,064/-** in the form of Demand Draft or Pay order on fixed deposit receipt (**drawn in favour of Registrar GGSIPU. New Delhi**) or Bank Guarantee of any Scheduled Bank shall be scanned and uploaded to the e-tendering website within the period of tender submission and original should be deposited in office of EE UWD GGSIPU,GF Library Block at GGSIPU Sec 16C Dwarka Campus New Delhi-110078 in an envelope marked 'EMD' before the stipulated date and time. The Name of Work, NIT No., due date of opening should be mentioned on the envelope. A part of earnest money is acceptable in the form of Bank Guarantee also. In such case, 50% of earnest money or Rs.20 lakh, whichever is less, will have to be deposit in shape prescribed above, and balance in shape of Bank Guarantee of any scheduled bank which is to be scanned and uploaded by the intending bidders. Alternatively, EMD can also be deposited in online mode as per details below:

	RTGS/ECS Details					
1.	Accounts Holder Name	Registrar, Guru Gobind Singh Indraprastha				
		University				
2.	Account No.	927860555				
3.	IFSC Code	IDIB000G082				
4.	Bank Name	Indian Bank				
5.	MICR Code	110019071				
6.	Account type	SB (Saving)				
7.	CBS Code/Branch Code	02029				
8.	Branch Name &	GGSIPU, Sector-16C, Dwarka, New Delhi-				
	Address	110078				
9.	Banker's Phone No.	011-28035244				

In case of EMD submission in online mode, copy of receipt with UTR number shall be scanned and uploaded to the e-tendering website within the period of tender submission and physical submission of receipt of online mode is not required.

The earnest money given by all the tenderers expect the lowest tenderer should be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier.

Copy of Certificate of Performance Certificate and Form 26AS etc. (if required), copy of PAN card, GST registration, GST return filed up to date, Copy of ESIC registration and EPF Registration shall be scanned and uploaded to the e-tendering website within the period of tender submission and certified copy of each shall be deposited by lowest bidder within a week of opening of financial bid.

Online tender documents submitted by intending bidders shall be opened only of those bidders, whose Earnest Money Deposit is found in order.

The bid submitted shall be opened at 03.30 P.M. on 23/09/2019 -.

- 10. The bid submitted shall become invalid if:
- i. The bidder is found ineligible.
- ii. The bidder does not upload all the documents as stipulated in the bid document.

- iii. If EMD is not submitted.
- iv. if a tenderer quotes nil rates against each item in Item rate tender or does not quote any percentage above/below on the total amount of the tender or any section/subhead in Item rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
- v. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
- 11. The contractor whose tender is accepted will be required to furnish performance guarantee of 5% (Five Percent) of the tendered amount within the period specified in Schedule "F". This guarantee shall be in the form of cash (in case guarantee amount is less than Rs.10,000/-) or Deposit at call receipt of any scheduled bank / Banker's cheque of any scheduled bank / demand draft of any scheduled bank / pay order of any scheduled bank (in case guarantee amount is less than Rs.1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule "F", including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor.
- 12. Intending Tenderers are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their tenders as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. A tenderer shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charges consequent on any misunderstanding or otherwise shall be allowed. The tenderer shall be responsible for arranging and maintaining at his own cost all materials, tools and plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a tender by a tenderer implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.
- 13. The competent authority on behalf of the Registrar of GGSIPU, does not bind itself to accept the lowest or any other tender and reserves to itself the authority to reject any or all the tenders received without the assignment of any reason. All tenders in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the tenderer shall be summarily rejected.
- 14. Canvassing whether directly or indirectly, in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
- 15. The competent authority on behalf of the REGISTRAR GGSIPU reserves to himself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
- 16. The contractor shall not be permitted to tender for works in the GGSIPU Circle, responsible for award and execution of contracts in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in GGSIPU, Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this department.
- 17. No Engineer of gazetted rank or other gazetted officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the previous permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the tender or engagement in the contractor's service.
- 18. The tender for the works shall remain open for acceptance for a period of **One Hundred Twenty (120)** days from the date of opening of tenders. If any tenderer withdraws his tender before the said period or

issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further, the tenderer shall not be allowed to participate in the re-tendering process of the work.

- 19. This Notice Inviting Tender shall form a part of the contract document. The successful tenderer /contractor, on acceptance of his tender by the Accepting Authority, shall, within Fifteen days from the stipulated date of start of the work, sign the contract consisting of: -
- (a) The Notice Inviting Tender, all the documents including additional conditions, specifications and drawings, if any, forming the part of the tender as uploaded at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
- (b) Standard CPWD Form 8 with up-to-date correction slips as applicable.
- (c) Integrity Pact.

SE, UWD, GGSIPU

Letter of Submission Item rate Tender and Contract for Works

(A) Tender for work of RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Operation and Maintenance of STP.

- i) To be submitted by **15.00 HRS hours up to 23/09/2019** to Superintending Engineer. UWD, Ground Floor, Library Block, GGSIPU, Sector-16C, Dwarka, New Delhi-110078

TENDER

I/ We have read and examined the Notice inviting tender, specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, special condition, particular Specification, Schedule of Quantities & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the GGSIPU within the time specified in Schedule "F", viz., schedule of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respects in accordance with, such conditions so far as applicable.

We agree to keep the tender open for Ninety (90) days/One Hundred twenty (120) days from the due date of opening of tender/ninety days from the date of opening of financial bid in case tenders are invited on 2/3 envelop system and not to make any modifications in its terms and conditions.

The earnest money of **Rs. 32,064/-** has been deposited in the shape of fixed deposit receipt of a scheduled bank/ demand draft of a scheduled bank/bank guarantee of scheduled bank/Online mode issued in favour of Registrar, GGSIPU. If I/we, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said GGSIPU or his successors in office shall without prejudice to any other right

or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/we fail to commence work as specified, I/we agree that GGSIPU or his successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to therein and to carry out such deviations as may be ordered, upto maximum of the percentage mentioned in Schedule "F" and those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the clauses of contract. Further, I/We agree that in case of forfeiture of earnest money or both Earnest Money & Performance Guarantee as aforesaid, I/We shall be debarred for participation in the retendering process of the work.

I/we hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/ confidential documents and shall not communicate information derived there from to any person other than a person to whom I/we am/are authorized to communicate the same or use the information in any manner prejudicial to the safety of the State.

Date	Signature of Contractor
	Postal Address
Witness:	
Address:	
Occupation:	
ACCEPTANC	<u>E</u>
The above tender (as modified by you as provided in accepted by me for and on behalf of the GGSIPU for a state of the GGSI	
)	
The letters referred to below shall form part of the Agree	ement:
a)	
a)	
b)	
c)	
	Superintending Engineer,
	University Works Department

GGSIPU

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY SECTOR-16C, DWARKA, NEW DELHI-110078

General Rules & Direction

- Notice Inviting Tender will state the work to be carried out, as well as the date for submission and opening of tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited at the time of purchase of tender. The performance Guarantee to be deposited by the successful tenderer and the amount of security deposit to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the work signed for the purpose of identification by the officer inviting tender shall also be open for inspection by the contractor at the office of officer inviting tender during office hours.
- 2. In the event of the tender being submitted by a firm, it must be signed separately by each partner thereof or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power of attorney to be produced with the tender, and it must disclose that the firm is duly registered under the Indian Partnership Act, 1952.
- 3. Receipts for payment made on account of work, when executed by a firm, must also be signed by all the partners, except where contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having due authority to give effectual receipts for the firm.

Applicable for Item rate Tender Only (Form-8)

4.

Any person who submits a tender shall fill up the Schedule of Quantity (Vol.II) form, stating at what rate he is willing to undertake each item of the work. Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tenders for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

The rate(s) must be quoted in decimal coinage. Amounts must be quoted in full rupees by ignoring fifty paisa and considering more than fifty paisa as rupee one.

In case the lowest tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors is same, then such lowest contractors may be asked to submit sealed revised offer quoting rate of each item of the schedule of quantity for all sub sections/sub heads should not be higher than their respective original rate quoted already at the time of submission of tender. The lowest tender shall be decided on the basis of revised offer.

If the revised tendered amount (worked out on the basis of quoted rate of individual items) of two or more contractors received in revised offer is again found to be equal, then the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s) (also DDH in case Horticulture work is also included in the tender), EE(P) or EE(HQ) of the circle and the lowest contractors those have quoted equal amount of their tenders.

In case of any such lowest contractor in his revised offer quotes rate of any item more than their respective original rate quoted already at the time of submission of tender, then such revised offer shall be treated invalid. Such case of revised offer of the lowest contractor or case of refusal to submit revised offer by the lowest contractor shall be treated as withdrawal of his tender before acceptance and 50% of his earnest money shall be forfeited.

In case all the lowest contractors those have same tendered amount (as a result of their quoted rate of individual items), refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each lowest contractors.

Contractor, whose earnest money is forfeited because of non-submission of revised offer, or quoting higher revised rate(s) of any item(s) than their respective original rate quoted already at the time of submission of his bid shall not be allowed to participate in the retendering process of the work.

Applicable for Percentage Rate Tender only (Form - 7)

4A Applicable for Item rate Tender only (CPWD-7)

In case of Item rate Tenders, contractor shall fill up the usual printed form, stating at what percentage below/above (in figures as well as in words) the total estimated cost given in Schedule of Quantities at Schedule-A, he will be willing to execute the work. The tender submitted shall be treated as invalid if:-

- 1) The contractor does not quote percentage above/below on the total amount of tender or any section/sub head of the tender.
- 2) The percentage above/below is not quoted in figures & words both on the total amount of tender or any section/sub head of the tender
- 3) The percentage quoted above/below is different in figures & words on the total amount of tender or any section/sub head of the tender.

Tenders, which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort including conditional rebates, will be summarily rejected. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit separate tender for each. Tender shall have the name and number of the works to which they refer, written on the envelopes.

In case the lowest tendered amount (estimated cost + amount worked on the basis of percentage above/below) of two or more contractors is same, such lowest contractors will be asked to submit sealed revised offer in the form of letter mentioning percentage above/ below on estimated cost of tender including all sub sections/sub heads as the case may be, but the revised percentage quoted above/below on tendered cost or on each sub section/ sub head should not be higher than the percentage quoted at the time of submission of tender. The lowest tender shall be decided on the basis of revised offers.

In case any of such contractors refuses to submit revised offer, then it shall be treated as withdrawal of his tender before acceptance and 50% of earnest money shall be forfeited.

If the revised tendered amount of two more contractors received in revised offer is again found to be equal, the lowest tender, among such contractors, shall be decided by draw of lots in the presence of SE of the circle, EE(s) in-charge of major & minor component(s (also DDH in case Horticulture work is also included in the tender), EE(P) or EE(HQ) of the circle & the lowest contractors those have quoted equal amount of their tenders.

In case all the lowest contractors those have quoted same tendered amount, refuse to submit revised offers, then tenders are to be recalled after forfeiting 50% of EMD of each contractor.

Contractor(s), whose earnest money is forfeited because of nonsubmission of revised offer, shall not be allowed to participate in the re-tendering process of the work

5. The officer inviting tender or his duly authorized representatives, will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded at the time of purchase of tender shall thereupon be given to the contractor who shall thereupon for the purpose of identification sign copies of the specifications and other documents mentioned in Rule-I. In the event of a tender being rejected, the earnest money of unaccepted tenders shall

thereupon be returned to the contractor, without any interest.

- 6. The officer inviting tenders shall have the right of rejecting all or any of the tenders and will not be bound to accept the lowest or any other tender.
- 7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement or payment to the officer inviting tender and the contractor shall be responsible for seeing that he procures a receipt signed by the officer inviting tender or a duly authorized Cashier.
- 8. The memorandum of work tendered for and the schedule of materials to be supplied by the department and their issue rates, shall be filled and completed in the office of the officer inviting tender before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and incomplete, he shall request the officer to have this done before be completes and delivers his tender.
- 9. The tenderers shall sign a declaration under the officials Secret Act 1923, for maintaining secrecy of the tender documents drawings or other records connected with the work given to them. Use of correction fluid, anywhere in tender document is not permitted. Such tender is liable for rejection.
- 9A Use of correcting fluid, anywhere in tender documents is not permitted. Such tender is liable for rejection

Applicable for Item Rate Tender only (Form - 8) 10.

Only rates quoted shall be considered. Any tender containing percentage below/ above the rates quoted is liable to be rejected. Rates quoted by the contractor in Item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall unless otherwise proved be taken as correct. If the contractor does not work out the amount of an item or it does not correspond with the rates written either in figures or in words, then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the rates quoted by the contractor will unless otherwise proved be taken as correct and not the amount. In event no rate has been quoted for any item(s), leaving space both in figure(s), word(s), and amount blank, it will be presumed that the contractor has included the cost of this/these item(s) in other items and rate for such item(s) will be considered as zero and work will be required to be executed accordingly.

Applicable for percentage Rate

10A In case of Item rate Tenders only percentage quoted shall be considered.

Any tender containing Percentage rates is liable to be rejected.

Percentage quoted by the contractor in Item rate tender shall be

Tender only (Form- 7)

accurately filled in figures and words, so that there is no discrepancy.

11. In the case of any tender where unit rate of any item/ items appear unrealistic, such tender will be considered as unbalanced and in case the tenderer is unable to provide satisfactory explanation, such a tender is liable to be disqualified and rejected.

Applicable for Item rate Tender only (Form– 8) 12.

All rates shall be quoted on the tender form (i.e. Schedule of Quantities Vol. II). The amount for each item should be worked out and requisite totals given. Special care should be taken to write the rates in figures as well as in words and the amount in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the word "Rs." should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs.2.15 P' and in case of words, the word, 'Rupees' should precede and the word 'Paise' should be written at the end. Unless the rate is in whole rupees and followed by the word "only" it should invariably be upto two decimal places. While quoting the rate in schedule of quantities, the word "only" should be written closely following the amount and it should not be written in the next line.

Applicable for Item rate Tender only (Form- 7)

- 12A In Item rate Tender, the tenderer shall quote percentage below/above (in figures as well as in words) at which he will be willing to execute the work. He shall also work out the total amount of his offer and the same should be written in figures as well as in words in such a way that no interpolation is possible. In case of figures, the word 'Rs.' should be written before the figure of rupees and word 'P' after the decimal figures, e.g. 'Rs. 2.15P and in case of words, the word 'Rupees' should precede and the word 'Paisa' should be written at the end
- i) The contractor whose tender is accepted shall be required to deposit an amount equal to 5% of the tendered value of the work as performance guarantee within the period as specified in schedule-,,F" in the form of an irrevocable bank guarantee bond of any scheduled bank in accordance with the form prescribed, fixed deposit receipt or demand draft in favour of Registrar, GGSIPU
 - ii) The contractor whose tender is accepted, will also be required to furnish by way of Security Deposit for the fulfillment of his contract, an amount equal to 2.5% of the tendered value of the work. The Security deposit will be collected by deductions from the running bills as well as final bill of the contractor at the rates mentioned above. The Security amount will also be accepted in cash or in the shape of Government Securities. Fixed Deposit Receipt of a Scheduled Bank or State Bank of India will also be accepted for this purpose provided confirmatory advice is enclosed.
- 14. On acceptance of the tender, the name of the accredited

- representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated in writing to the Engineer-in-Charge.
- 15. GST or any other tax applicable in respect of inputs procured by the Contractor for this contract shall be payable by the Contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST Act 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
- 16. The contractor shall give a list of both gazetted and non-gazetted GGSIPU employees related to him.
- 17. The tender for the work shall not be witnessed by a contractor or contractors who himself/themselves has/have tendered or who may and has/have tendered for the same work. Failure to observe this condition would render, tenders of the contractors tendering, as well as witnessing the tender, liable to summary rejection.
- 18. The tender for composite work includes, in addition to building work, all other works such sanitary and water supply installations drainage installation, electrical work, horticulture work, roads and paths etc. The tenderer apart from being a registered contractor (B&R) of appropriate class, must associate himself with agencies of appropriate class which are eligible to tender for sanitary and water supply drainage, electrical land horticulture works in the composite tender.
- 19. The contractor shall submit list of works which are in hand (progress) in the following form:-

Name of	Name and particulars of	Value	Position	of	Remarks
Work	Divn where work is being	of	Work	in	
	executed	Work	progress		
1.	2.	3.	4.		5.

20. The contractor shall comply with the provisions of the Apprentices Act 1961, and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the GGSIPU may in his discretion, without prejudice to any other right or remedy available in law, cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the said Act.

CONDITION OF	GGSIPU
CONTRACT	

CONDITIONS OF CONTRACT

Definitions

- 1. The Contract means the documents forming the tender and acceptance thereof and the formal agreement executed between the competent authority on behalf of the GGSIPU and the Contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.
- 2. In the contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them:
 - i) The expression works or work shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
 - ii) The Site shall mean the land/ or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work, is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
 - iii) The Agency/Contractor/Tenderer shall mean the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assigns of such individual, firm or company.
 - iv) The GGSIPU means the Guru Gobind Singh Indraprastha University and his successors.
 - v) The Engineer-in-charge means the Engineer Officer who shall supervise and be incharge of the work and who shall sign the contract on behalf of the President of India as mentioned in Schedule 'F' hereunder.
 - vi) Accepting Authority shall mean the authority mentioned in Schedule "F".
 - vii) Excepted Risk are risks due to riots (other than those on account of contractor's employees), war (whether declared or not) invasion, act of foreign enemies, hostilities, civil war, rebellion revolution, insurrection, military or usurped power,

any acts of Government, damages from aircraft, acts of God, such as earthquake, lightening and unprecedented floods, and other causes over which the contractor has no control and accepted as such by the Accepting Authority or causes solely due to use or occupation by Government of the part of the works in respect of which a certificate of completion has been issued or a cause solely due to Government's faulty design of works.

- viii) Market Rate shall be the rate as decided by the Engineer-in-Charge on the basis of the cost of materials and labour at the site where the work is to be executed plus the percentage mentioned in Schedule "F" to cover, all overheads and profits.
- ix) Schedule(s) referred to in these conditions shall mean the relevant schedule(s) annexed to the tender papers or the standard Schedule of Rates of the government mentioned in Schedule "F" hereunder, with the amendments thereto issued upto the date of receipt of the tender.
- x) Department means Guru Gobind Singh Indraprastha University or authorized by GGSIPU to work on their behalf.
- xi) District Specifications means the specifications followed by the State Government in the area where the work is to be executed.
- xii) Tendered value means the value of the entire work as stipulated in the letter of award.
- xiii) Date of commencement of work: The date of commencement of work shall be the date of start as specified in schedule 'F' or the first date of handing over of the site, whichever is later, in accordance with the phasing if any, as indicated in the tender document.
- xiv) GST shall mean Goods and Service Tax Central, State and Inter state.

Scope and Performance

- 3. Where the context so requires, words imparting the singular only also include the plural and vice versa. Any reference to masculine gender shall whenever required include feminine gender and vice versa.
- 4. Headings and Marginal notes to these General Conditions of Contract shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof or of the contract.
- 5. The contractor shall be furnished, free of cost one certified copy of the contract documents except standard specifications, Schedule of Rates and such other printed and published documents, together with drawings as may be forming part of the tender papers. None of these documents shall be used for any purpose other than that of this contract.

Works to be carried out

6. The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plants, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities (Schedule-A) shall, unless otherwise stated, be held to include wastage on materials, carriage and cartage, carrying and return of empties, hoisting, setting, fitting and fixing in position and all other labours necessary in and for the full and entire execution and completion of the work as aforesaid in accordance with good practice and recognized principles.

Sufficiency of Tender

7. The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall, except as otherwise provided, cover all his obligations under the Contract and all matters and things necessary for the proper completion and maintenance of the works.

Discrepancies and Adjustment of Errors

- 8. The several documents forming the Contract are to be taken as mutually explanatory of one another, detailed drawings being followed in preference to small scale drawing and figured dimensions in preference to scale and special conditions in preference to General Conditions.
 - 8.1 In the case of discrepancy between the schedule of Quantities, the Specifications and/or the Drawings, the following order of preference shall be observed:
 - i) Description of items given in Schedule of Quantities.
 - ii) Technical Specification, Special Conditions, Additional conditions and Particular Specifications.
 - iii) Drawings.
 - iv) C.P.W.D. Specifications.
 - v) Indian Standard Specifications of B.I.S.
 - vi) Decision of Engineer-in-Charge.
 - 8.2 If there are varying or conflicting provisions made in any one document forming part of the contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
 - 8.3 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the works comprised therein according to drawings and specifications or from any of his obligations under the contract.

- 9. The successful tenderer/contractor, on acceptance of his tender by the Accepting Authority, shall, within 15 days from the stipulated date of start of the work, sign the contract consisting of:
 - i. The notice inviting tender, all the documents including drawings, if any, forming the tender as issued at the time of invitation of tender and acceptance thereof together with any correspondence leading thereto.
 - ii. Standard C.P.W.D. Form as mentioned in Schedule 'F' consisting of:
 - a) Various standard clauses with corrections up to the date stipulated in Schedule 'F' along with annexures thereto
 - b) C.P.W.D. Safety Code
 - c) Model Rules for the protection of health, sanitary arrangements for workers employed by CPWD or its contractors.
 - d) CPWD Contractor's Labour Regulations.
 - e) List of Acts and omissions for which fines can be imposed
 - iii. No payment for the work done will be made unless contract is signed by the contractor.

PROFORMA OF SCHEDULES

(Operative Schedules to be supplied separately to each intending tenderer)

SCHEDULE "A"

Schedule of quantities - (Page 59-60)

SCHEULE "B"

Schedule of materials to be issued to the contractor.

SCHEDULE "C"

Tools and plants to be hired to the contractor:

SCHEDULE "D"

Extra schedule for specific requirements/ document NIL

for the work, if any.

SCHEDULE "E"

GCC 2019 (Maintenance) Published with upto date

Reference to General Conditions of contract. correction slip

Name of work: RMO GGSIP University, Dwarka Campus, New Delhi

Sub Head: Operation and Maintenance of STP.

Estimated cost of work: Rs. 16,03,194/-

i) Earnest money : Rs. 32,064/- (To be returned after receiving performance guarantee)

ii) Performance Guarantee : 5% of tendered value.

iii) Security Deposit 2.5% of tendered value.

Or

2.5% of tendered value plus 50% of PG for contractor involving maintenance of the building and services/other work after construction of same building

and services/other work.

SCHEDULE "F"

General Rules & Directions:

General Rules & Direction: Superintending Engr, UWD, GGSIPU

Officer Inviting Tender: Superintending Engr, UWD, GGSIPU

Definitions:

2(i) Engineer-in-Charge Superintending Engr, UWD, GGSIPU

2(ii) Accepting Authority Superintending Engr, UWD, GGSIPU

2 (iii) Percentage on cost of materials and labour to cover all overheads and profits

15%

2 (iv) Standard Schedule of Rates

15% DSR 2018 (E)/Market Rates

2 (v) Department

GGSIPU

2(vi) Contract Form

Form 8 with GCC 2019 (Maintenance) with upto date Correction slip published by CPWD.

Clause 1

 Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance.

4 Days

ii) Maximum allowable extension with late fee @ 0.1 % per day Of Performance Guarantee amount beyond the period provided in (i)

3 days

above.

Clause 2

Authority for levy compensation Under clause 2.

Superintending Engineer/Registrar GGSIPU

Clause 2A

Whether Clause 2A shall be applicable

No.

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start

7 Days

Mile Stone as per table given below:-

S. No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be with-held in case of non achievement of milestone
1	NIL	NIL	NIL
2	NIL	NIL	NIL

Time allowed for execution of work.

12 months

Authority to decide

a) Extension of time

Superintending Engineer GGSIPU

b) Rescheduling of milestone

Superintending Engineer/ Registrar, GGSIPU

c) Shifting of date of start in case of delay in handing over of site

Superintending Engineer/ Registrar, GGSIPU

Schedule of Handing over of site

Complete site on award of work.

belieduie of	randing over or site		Complete site on award or work.	
Part	Portion of site	Description	Time Period for handing over reckoned fro date of issue of letter of intent.	
Part A				
Part B				

Schedule of issue of Designs

Not Applicable

Part	Portion of site	Description	Time Period for issue of design reckoned from date of receipt of tender
Part A			
Part B-1			
Part B-2			
Part B-3			

Clause 5.2

Nature of Hindrance Register

Physical

Clause 5.4

Schedule of rate of recovery for delay in submission of the Modified programme in terms of delay days.

S. No.	Contract Value	Recovery
I	Less than or equal to Rs. 1 Crore	500
II	More than Rs. 1 Crore but less than or equal to Rs. 5 Crore	1000
III	More than Rs. 5 Crore but less than or equal to Rs. 20 Crore	2500
IV	More than Rs. 20 Crore	5000

Clause 6 or 6 A

Clause 6A Applicable

Clause 7

Gross work to be done together with net payment/ Adjustment of advances for material collected, if any Since the last such payment for being eligible to Interim payment

Monthly payment

Clause-7A Applicable

Clause-8B

i. Maintenance or Upgradation Contractsii. Other WorksNot Applicable

S. No.	Contract Value	Limit Rs.
I.	Less than or equal to Rs 1 Crore	2000
II.	More than 1 Crore but less than or equal to	5000
	Rs 5 Crore	
III.	More than 5 Crore but less than or equal to Rs 20 Crores	25000
IV.	More than Rs 20 Crores	50000

Clause 10 A

List of testing equipment to be provided at

Magger, Crimping Tool, Hammer Drill, Machine, Chase Cutter, Tong Tester, Water quality, Testing Meter etc and necessary tool for smooth operation and maintenance.

Clause 10 B(ii)

Whether clause 10B(ii) is applicable

No

Clause 10 C

Component of labour expressed as percent of value of work

Not Applicable

Clause 10 CA

S. No.	Material Covered under this clause:	Nearest Material (other than cement, reinforcement bars, the structural steel and POL) for which all India wholesale Price Index to be followed:	Base Price and its corresponding period of all the Material covered under clause 10 CA
1			
2			

Clause 10 CC

Clause 10CC to be applicable in contracts with Stipulated period of completion exceeding the Period shown in next column

Twelve months

Schedule of component of other materials, labour, POL etc for price escalation

Component of Civil (except for materials covered under clause 10 CA)/Electrical construction value of work

NIL

Component of labour expressed as percent of total

value of work

NIL

Component of POL expressed as percent of total value of work

NIL

Clause 11

Specifications to be followed execution of work

CPWD specifications for Electrical Work for 2013 (Part –I, Internal) & 1994 (Part – II, Elect.) for fire alarm system amended up to date

Clause 12

Type of Work

Maintenance work

12.2 & 12.3 Deviation limit beyond which clause 12.2 & 12.3

30%

12.5 i) Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation

NA

ii) Deviation Limit for items mentioned in earth work sub head of DSR and related items

Clause 16

Competent Authority for deciding reduced rates

Superintending Engineer/Registrar, GGSIPU

Clause 18

List of mandatory machinery tools& plants to be deployed by the contractor at site

As required for completion within time period and Safety equipments like safety mask for poisons gases (6 Nos), Fire Extinguisher ABC type (1 No.) CO₂ Type (1 No), Oxygen Cylinder and any other Safety equipment required for O &M of STP.

Clause 25

Place of Arbitration

Delhi

Constitution of Dispute Redressal committee

Chairman Registrar, GGSIPU

Member Technical Expert appointed by Hon'ble VC

Clause 36 NIL

S. No.	Minimum Qualification of Technical Representative	Discip line	Designation (Principal Technical/Technical representative)	Minimu m Experien ce	Nu mb er	Rate at which shall be made contractor in the not fulfilling proclause 36(i) Figure	from the he event of
1							
2							

Clause 42

- i. Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rate 2018 printed by C.P.W.D
- ii. Variations permissible on theoretical quantities:
- a) Cement

For Works with estimate cost put to tender not more than Rs 5 lakh.

3% plus/minus

For work with estimate cost put to tender more than Rs 5 lakh.

2% plus/minus

b) Bitumen All work

2.5% plus & only & nil on minus side.

c) Steel Reinforcement and structural steel sections for each diameter, section and category

2% plus/minus

d) All other materials

NIL

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of Item	Rates in figures and words at which recovery shall be made from the contractor					
		Excess beyond permissible variation	Less use beyond permissible variation				
1.	Cement	NA	NA				
2.	Steel reinforcement	NA	NA				
3.	Structural Sections	NA	NA				
4.	Bitumen issued free	NA	NA				
5.	Bitumen issued at stipulated fixed price	NA	NA				

Form of Performance Security (Guarantee) Bank Guarantee Bond

1. In consideration of the Guru Gobind Singh Indraprastha University (hereinafter called "The University") having offered to accept the terms and conditions of the proposed agreement between
and (hereinafter called "the said Contractor(s)") for the work
(hereinafter called "the said agreement") having agreed to
production of a irrevocable Bank Guarantee for Rs (Rupees
only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and condition in the said agreement.
We, (hereinafter referred as "the Bank") hereby undertake to (indicate the name of the Bank)
pay to the University an amount not exceeding Rs (Rupeesonly) on demand by the University.
2. We, do hereby undertake to pay the amounts due and
(indicate the name of the Bank) payable under this guarantee without any demure, merely on a demand from the University stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs
3. We, the said bank further undertake to pay the University any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.
The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.
4. We, further agree that the guarantee herein contained shall (indicate the name of the Bank)
remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the University under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer in-Charge on behalf of the University certified that the terms and conditions of the said agreemen have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.
5. We,further agree with the University that the University
(indicate the name of the Bank) shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the University against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the University or any indulgence by the University to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, lastly undertake not to revoke this guarantee except

(indicate the name of the Bank) with the previous consent of the University in writing.

This groupertee shell be valid unto unless entended on demand by	. tha
8. This guarantee shall be valid upto unless extended on demand by	me
University. Notwithstanding anything mentioned above, our liability against this guarantee	e is
restricted to Rs (Rupees only) and unless a clain	n in
writing is lodged with us within six months of the date of expiry or the extended date of expiry of	this
guarantee all our liabilities under this guarantee shall stand discharged.	
Dated the day of for (indicate the name of the Bank)	

Signature & Seal of Bank

FORM OF EARNEST MONEY (BANK GUARANTEE)

		EREAS, contractor (Name of contractor) hereinafter called "the							
	- 1	has submitted his tender dated(date) for the construction of							
		OW ALL PEOPLE by these presents that we							
bank) ha	aving	g our registered office at (hereinafter called "the							
Bank") a	ire t	oound unto							
Engineer) (he	ereinafter called							
"the E	Engii	neer-in-Charge") in the sum of Rs							
words) for which payment well and truly to be made to the said							
Engineer	-in-	Charge the Bank binds itself, his successors and assigns by these presents.							
	SEA	ALED with the Common Seal of the said Bank this							
THE CO	NDI	TIONS of this obligation are:							
1112 00		arions of this songation mo.							
(1) TO									
` '		er tender opening the Contractor withdraws his tender during the period of validity of							
	tender (including extended validity of tender) specified in the Form of tender;								
	If the contractor having been notified of the acceptance of his tender by the Engineer-in Charge:								
	a)	fails or refuses to execute the Form of agreement in accordance with the instructions to							
		contractor, if required; OR							
	b)	fails or refuses to furnish the Performance Guarantee, in accordance with the provisions							
	•	of tender document and instructions to contractor, OR							
	c)	fails or refuses to start the work, in accordance with the provisions of the contract and							

We undertake to pay to the Engineer-in-Charge up to the above amount upon receipt of his first written demand, without the Engineer-in-Charge having to substantiates his demand, provided that in his demand the Engineer-in-Charge will note that the amount claimed by him is due to him owing to the occurrence of one or any of the above conditions, specifying the occurred condition or conditions.

Guarantee, against Security Deposit after award of contract.

d) fails or refuses to submit fresh Bank Guarantee of an equal amount of this Bank

instructions to contractor, OR

The Guarantee will remain in force up to and including the date after the
deadline for submission of tender as such deadline is stated in the instructions to contractor
or as it may be extended by the Engineer-in-Charge, notice of which extension(s) to the
Bank is hereby waived. Any demand in respect of this Guarantee should reach the Bank not
later than the above date.

DATE.....

SIGNATURE OF THE BANK SEAL

WITNESS.....

(SIGNATURE, NAME AND ADDRESS

^{*} Date to be worked out on the basis of validity period of six months from last date of receipt of tender.

INTE	GR	ITY	PA	CT
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То)					
						_

Sub: NIT No. 14/SE/UWD/Elect/2019-20 for the work "RMO GGSIP University, Dwarka Campus, New Delhi. SH:- Operation and Maintenance of STP.

Dear Sir,

It is here by declared that GGSIPU is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the GGSIPU.

Yours faithfully

Superintending Engineer (University Works Department)

INTEGRITY PACT

To

Superintending Engineer, GGSIPU, Sector 16C Dwarka, New Delhi-78

Sub: Submission of Tender for the work of "RMO GGSIP University, Dwarka Campus, New Delhi SH:- Operation and Maintenance of STP.

Dear Sir,

I/We acknowledge that GGSIPU is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed Integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by GGSIPU. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, GGSIPU shall have unqualified, absolute and unfettered right to disqualify the tender/bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours Faithfully

(Duly authorized signatory of the Bidder)

INTEGRITY PACT

INTEGRITY AGREEMENT

THIS	Integrity20	Agreement is mad-	e at	on this _		_day of
			BETWEE	EN		
as the	"Principa	ented through Superial/Owner ^{ee} , which exfinctude its successor	xpression shal	l unless repug	`	
			AND			
			throu	ıgh		
				(Hereinafter	referred	as the
		nctor" and which expanded its successors		1 0	ant to the m	eaning or

Preamble

WHEREAS the Principal/Owner has floated the Tender (NIT No. 14/SE/UWD/Elect/2019-20) (hereinafter referred to as "Tender/Bid") and intends to award, under laid down organizational procedure, contract for RMO GGSIP University, Dwarka Campus, New Delhi SH:- Operation and Maintenance of STP. (Name of Work) hereinafter referred to as the "Contract".

And WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement(hereinafter referred to as "Integrity Pact" or "Pact"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants in this pact, the parties hereby agree as follows and this pact witnesses as under:

Article 1: Commitment of the Principal/Owner

- 1) The Principle/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the

- execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
- b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.
- c) The Principal/Owner shall endeavour to exclude from the Tender process any person, whose conduct in the past has been of biased nature.
- 2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code (IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

- 1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government/Department all suspected acts of fraud or corruption or Coercion or Collusion of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.
- 2) The binder(s)/Contractor(s) commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:
 - a) The bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.
 - b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s) into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

- c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contractor(s) will; not use improperly;, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
- d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives, if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.
- e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.
- 3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of other and/or to influence the procurement process to the detriment of the Government interests.
- 5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach or this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

- 1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2 above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.
- 2) Forfeiture of EMD/Performance Guarantee/Security Deposit: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1) the principal/owner apart from exercising any legal right that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Earnest Money Deposit, Performance Guarantee and Security Deposit of the Bidder/Contractor.
- 3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of IPC Act, or if the Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

- 1) The bidder declares that no previous transgressions occurred in the last 5 year with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.
- 2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/holiday listing of the Bidder/Contractor as deemed fit by the Principal/Owner.
- 3) If the Bidder/Contractor can prove that he has resorted/recouped the damage caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation (s) of the principles laid down in this agreement/Pact by any of its Sub-contractor/Sub-vendors.

- 2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.
- 3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6: Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor Twelve months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, GGSIPU.

Article 7: Other Provisions

- 1) This pact is subject to Indian Law, place of performance and jurisdiction is the **Head quarters of the Division** of the Principal/Owner, who has floated the Tender.
- 2) Changes and supplements need to be made in writing. Side agreements have not been made.
- 3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.
- 4) Should one or several provisions of this pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.
- 5) It is agreed term and condition that any dispute or difference arising between the
 - parties with regard to the terms of this Integrity Agreement/Pact or any action taken by the Owner/Principal in accordance with this Integrity agreement /pact interpretation thereof shall not be subject to arbitration.

Article 8: Legal and Prior Rights

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and

remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contract documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHERE OF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

(For and on behalf of Principal/C	Owner)
(For and on behalf of Bidder/Co	ntractor)
WITNESSES:	
1	
2	
Place:	
Dated:	

Special Conditions

- 1.0 "CPWD Specifications" wherever appearing in this document would mean Latest edition of CPWD specifications with correction slips issued upto the last date of receipt of tender.
- 2.0 GCC 2019 (Maintenance) referred in this document is Govt of India Publication and is available in the market.
 - a) Form 7/8, forming part of 'GCC 2019' (Maintenance) shall be superceeded by this document.
 - b) Wherever "President of India" is appearing in the GCC 2019 (Maintenance) same shall be read as GGSIPU.
 - c) Wherever Superintending Engineer is appearing in GCC 2019 (Maintenance), it may be read as Superintending Engineer/Admin Head, GGSIPU.
 - d) Wherever CPWD or PWD is appearing in GCC 2019 (Maintenance), it may be read as GGSIPU.
- 3.0 Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall be all-inclusive and shall apply to all heights, levels, depths, leads, lifts including shafts, machine room & stair cases. The rates for all items of work, unless clearly specified otherwise, shall include the cost of all labour, materials, and other inputs involved in the execution of the items.
- 4.0 No foreign exchange shall be made available by the department for the purpose of procurement of equipment, plants, machinery, materials of any kind or any other items required to be carried out in execution of work.
- 5.0 The contractor or his authorized representative should always be available at the site of work to take instructions from Engineer in charge, and ensure proper execution of work.
- 6.0 No work shall commence in the absence of contractor's engineers and they shall certify in writing about the correctness of layout alignment and shall ensure stability of all structural work such as partition panel and other related items.
- 7.0 All work and materials brought and left upon the ground by the contractor or by his orders for the purpose of forming part of the works, are to be considered to be the property of the GGSIPU and the same are not to be removed or taken away by the contractor or any other person without consent in writing of the Engineer-in-charge but the GGSIPU is not to be in any way responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.

- 8.0 The contractor shall execute the different items simultaneously, as far as possible, so that minimum breakage and repairs are involved.
- 9.0 The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of environment and waterways. He shall make good at his own cost and to the satisfaction of the Engineer-in-Charge, any damage to public or private property whatsoever caused by the execution of the work or by traffic brought thereon by the contractor. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/users of adjoining buildings.
- 10.0 All associated activities required for obtaining necessary clearances, permissions, approvals, all licenses etc. as required from all concerned authorities in respect of installation and commissioning shall be the responsibility of the contractor, the cost for which shall be deemed to be included in the rates for various items of work of Schedule of Quantities. However, actual statutory fee paid to the concerned authorities for obtaining approvals if any, shall be reimbursed by the University on production of proof of payment made by the Contractor.
- 11.0 The contractor shall be responsible for watch and ward of all the works, equipment and various materials till complete handing over of works.
- 12.0 Wherever any reference to any Indian Standards Specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued their to or revisions there of if any, upto the date of receipt of tenders.
- 13.0 The site of work may be at one or more places within the campus and at any floor upto ten levels for which nothing extra shall be paid. Nothing extra shall be paid for height on external work.
- 14.0 Labour Cess @ 1% of gross value of work done shall be deducted from the payment as per Delhi Building & other Construction Workers Welfare Cess Act 1996 besides other statutory deduction like income tax, GST etc. as applicable.
- 15.0 The contractor shall be fully responsible for rectifying the defect, which may happen during the use up to 12 months from the date of completion of the work. The decision of Engineer-in-Charge in this regard shall be final & binding. In case the contractor fails to carry out the said repairs, rectifications, replacement within the specified time, the department shall get the repairs / rectifications / replacement as considered necessary at the cost of the contractor by recovering the cost from the security deposit. In case additional expenditure is incurred by the department on this account, the same shall be borne by the contractor.
- 16.0 The rates quoted by the contractor shall be all inclusive keeping in mind the specifications, special conditions, additional conditions and particular specifications and nothing extra shall be payable whatsoever, unless otherwise specified.

- 17.0 If the work is carried out in more than one shifts or during night to meet the time period of completion or inaccordance with availability of working area, nothing extra shall be paid on this account. The contractor has to work in accordance with programme, time schedule as directed by Engineer-in-Charge.
- 18.0 The contractor shall follow the instruction and restrictions imposed by the Administration / Police authorities on the working and movement of labour / material / vehicles etc and nothing extra shall be paid on this account.
- 19.0 The Agency shall be responsible for co-ordinating the activities of all works and shall ensure program and day to day maintenance of works as per the laid down programme
- 20.0 The work shall be carried out as per CPWD specification wherever applicable, or as directed by Engineer-in-Charge or his authorized representative.
- 21.0 No T & P shall be issued to the contractor. All required T&P minimum as defined in Schedule F & other T & P required as per site requirement shall have to be arranged by the contractor at his own. Decision of Engineer-in-charge shall be final and binding.
- 22.0 The contractor shall take all precaution for safety of the workmen. If any accident/mishap occurs, the department shall not be responsible for the same. Consequently any compensation payable shall be at the contractor cost.
- 23.0 The contractor shall comply with all local laws, statutory provisions like minimum wages act, contract labour act, ESIC, EPF and any other law subject to applicability.
- 24.0 The contractor shall pay to his workers not less than the minimum wages notified by the Government of Delhi and revised from time to time. The contractor shall strictly abide by all labour laws applicable to him such as Minimum Wages Act, EPF Act, ESIC Act, Payment of Bonus Act, Payment of Gratuity Act, Contract Labour (R&A) Act and the Rules made there under etc. Any violation of these Acts or Rules made there under shall be taken seriously and action will be taken in accordance with agreement.
- 25.0 The contractor shall have to arrange all tools and plants required to carry out the work timely and satisfactorily at his own cost. GGSIPU shall not issue any tools & plant whatsoever for this purpose. The contractor is advised to inspect the campus, acquaint himself with the scope of work and site conditions. He is also advised to thoroughly understand the complete tender document before quoting the rates.
- 26.0 The contractor shall indemnify and hold GGSIPU harmless from and against all claims, damages, losses and expenses arising out of, or resulting from the works or services provided under this contract.
- 27.0 If any money shall, as the result of any instructions from the labour authorities or claim or application made under any of the Labour Laws, or Regulations, be directed to be paid by GGSIPU, such money shall be deemed to be payable by the contractor to GGSIPU within seven

- days. GGSIPU shall be entitled to recover the amount from the contractor by deduction from money due to the contractor or from the Performance Guarantee or Security Deposit.
- 28.0 The contractor is not allowed to construct any huts for its workers inside the campus. No cooking or lodging shall be allowed in premises of the University.
- 29.0 The electrical work will be carried out in accordance with the General Specifications 2013 for electrical works in (part I) internal, CPWD specifications 1994 (part II) external, except as otherwise specified in the description of items given in the Schedule of Quantities or in the attached Technical Specification while complying in all respects with the requirements of the latest Indian Electricity Rules in force at the time of execution.
- 30.0 The electrical work shall be carried out simultaneously with the civil and interior works.

Additional Conditions

1. The contractor has to operate and maintain sewage treatment plant (STP) to conform to quality requirements shown below

1	PH	6.5 to 8.5
2	Suspended solids	Below 20 mg/l
3	BOD	Below 20 mg/l
4	COD	Below 100 mg/l
5	Oil & grease	Below 5 mg/l
6	Odour	Not objectionable
7	Hardness	< 10 ppm for softened water only

Operation of the STP has to be carried out as per the recommended procedure for each unit treatment process as per detailed operation and maintenance manual for the sewage treatment plant offered by him. The agency will obtain approval/permission/compliance report from DPCC/any other statutory body, as applicable and as required, for operation of sewage treatment plant. Operation & Maintenance to be carried out as per the Act wrt STP issued by Govt. Of India or GNCT Delhi time to time as applicable.

Comprehensive maintenance shall be carried out in conformity with CPWD specification and operation and maintenance manual.

- 2. The agency shall provide preventive maintenance schedule and produce it to the Engineer-in-Charge for approval. Preventive maintenance scheduled works have to be meticulously carried out at correct time intervals for all equipment. The firm shall carry out the service / preventive maintenance and routine checking, adjusting, lubricating, cleaning the equipment periodically as per approved maintenance schedule. The record of such visits and maintenance work carried out shall be maintained in the register. The agency shall ensure that all equipments are in efficient reliable and safe operation conditions. The firm shall employ skilled personnel, qualified enough to keep the equipment in perfect working order. They shall be able to locate the fault if any and set right the same within reasonable time period.
- 3. In addition to routine and periodical maintenance, the firm shall depute its maintenance personnel for breakdown maintenance as and when required and as and when called for by Engineer-in-charge. The complaint shall be attended and set right on the same day. In case, the defect cannot be set right on the same day, the Engineer-in-charge shall be kept informed about the progress of the maintenance work at site.
- 4. Following equipments shall be repaired by the firm to ensure trouble free operation, which shall be covered under scope of maintenance:-

S. No.	Description of Equipment	Make	Unit	Quantit
				y
1)	Perforated bar screen with aperture of 25 mm	Stainle	Each	1
		ss steel		
2)	Ladder	Stainle	Each	8
		ss steel		

Air diffuser system with 2 nos. twin type air blower of capacity: 600 m3/Hr. at the pressure of 0.45 kg/cm2 with 20 HP 3 phase 415 volt AC supply with necessary piping and valves air distribution pipes grid complete as required.	ABB	Set	1
4) Equalized waste water transfer pumps: Submersible, centrifugal, no-clog sewage handing type pump for raw sewage transfer from equalization tank to aeration tank with suitable HP, TEFC induction motor 3 phase 415 voly AC supply. Cap: 25 m3/hr @ 10 m head.	Grund foss	Each	2
5) Digested Sludge disposal/recycling pumps Horizontal, centrifugal sludge disposal of sludge to tanker or to sludge dry beds suitable HP 3 phase, 415 Volt AC TEFC induction motor mounted on a common channel base – plate with coupling guard, 150 mm dia prerssure guage 3HP, 1420 RPM, @ 14 mtrs Head	Grund foss	Each	2
6) Chlorine Dosing pump Hypo-chlorine solution dozer comprising of 100 ltrs capacity HDPE (Chemical Grade) capacity for dosing of chlorine solution maximum putout 12 LPH, pressure – 2 kg/cm2	Milton , Roy India Pvt. Ltd.	Each	2
7) Filter Feed pumps Horizontal centrifugal pumps for filtration 400/440V, 3 phase, 50 cycles AC power supply HP-7.5, RPM - 2900	Kirlos kar	Each	2
8) Irrigation water lifting pumps Horizontal, centrifugal, pumps. The pumps shall be made of C.I. casing, CI impeller SS shaft & Sleeve, Mechanical Seal connected by to a TEFC induction motor mounted on a common channel based – plate pressure gauge with GM isolation cock. HP-10, RPM – 2900 Capacity 30m3/hr @40 mtr Head (approx)	Kirlos kar	Each	2
9) Multigrade sand filter Vertical self supporting multi Grade sand filter fabricated from MS sheets. Capacity – 30m3/hr	Hydro n	Set	1
10) Activated carbon filter Vertical self supporting activated carbon filter (ACF) fabricated from MS sheets duly painted. Capacity – 22 m3/hr	Hydro n	Set	1
Filter press with manual operation mechanism having capacity of 30 nos. plate complete with 2 nos. (1W+1S) screw feed pumps, of capacity 30m3/hr., 3 phase, 415 volt motor, HP-1.5, RPM - 1420	ABB	Each	2
12) Softener feed pump set Horizontal centrifugal pump sets with suitable TEFC, HP-3, RPM-2480 capacity 12000 LPH@25	Kirlos ker	Set	2
13) Water softener	Hydro	Set	1

	Vertical down flow type MS fabricated water softener	n		
	system			
	Capacity – 12500 LPH			
14)	Hydro pneumatic system (Fixed speed drive)	Groun	Set	1
	Hydro pneumatic system comprising of 2 pumps double	dfoss		
	stage vertical type mounted on common base frame with			
	SS impeller & shaft common pressure, 3 KW, RPM-			
	2870 to 2890			
15)	Electrical Panel		Set	1
	Electrical panel, front accessible only, free floor standing			
	conforming to minimum IP-42 degree of protection			
	suitable to control all above equipments and cabling loop			
	earthing.			

The repair/ replacement and maintenance of the parts shall not be limited to the equipment/inventory mentioned above but shall cover all parts, equipment, controls, required for safe and satisfactory operation of the sewage treatment plant, whether mentioned there or not. It includes all repairs and replacement of spares etc as and when required.

- 5. In case of repair, requiring more than 24 hrs thereby halting the operation of STP, the agency shall arrange for alternative pump/equipment for continuous operation. Preventive maintenance shall be carried on working days and in normal working hours (9:00AM to 6:00 PM), However breakdown maintenance shall be attended on 24 hours basis on all days including Sunday and holidays. No extra payment in this regard shall be paid. Minor and major repairs to equipments installed in the STP have to be carried out by the contractor during the O &M period of 1 year and any repairs to the pipe lines, diffusers etc will have to be attended by the contractor. All such activities including spare parts changed for each equipment shall be documented in log books for each equipment. The contractor shall not be paid extra on account of any repair or additional staff required for repairs unless otherwise specifically provided in BOQ.
- 6. Contractor has to properly maintain all pump sets, liquid level control switches, all control valves and other on line instrumentation in good working condition. The lubricants used for maintenance purpose shall be as per strictly of manufacturer's specifications.
- 7. The entire spare parts shall be arranged by the agency at their own and nothing shall be paid extra on this account All the parts should be readily available for facilitating the necessary replacement. The spare parts replaced will have to be new and same make. As and when the parts are replaced, the same shall be intimated by agency to engineer in charge. In case of major breakdowns the agency shall be free to replace the spares as required or to modify circuit or the component/assemblies after intimation to Engineer-in-Charge or his representative. However nothing will be paid extra on this account.
- 8. Any other routine repair work which is required to ensure smooth operation of sewage treatment plant and which is specifically not mentioned in this document shall be done by the agency time to time. Nothing extra shall be paid on this account.
- 9. The firm will maintain the record of all preventive as well break down maintenance action in the prescribed manner in the log book. Any fault noted during preventive maintenance beyond the scope of this agreement may be informed to department immediately for taking necessary remedial action, failing which the contractor shall make good the repairs at his own cost.
- 10. STP including water softening plant has to be manned and operated round the clock with approved personnel in three shifts at eight hours working for each shift throughout the year. The contractor should enclose the names of staff to be employed with qualification certificates, experience certificate and their

passport size photographs affixing their signature. The staff to be employed shall be responsible for discharging treatment effluents for redistribution. The staff to be deployed should confirm to following qualification and experience.

S. No.	Person to be deployed	Minimum qualification	Minimum Experience	Deployment schedule
1	Operator	ITI/Electrical Trade/Mechanical Stream	5 years experience in operation and routine checkup of STP	1 number in each shift of 8 hrs for round the clock operation including Sundays and all holidays
2	Helper	8 th Pass	2 years experience in handling operations of STP	1 number in general shift during 6 days a week
3	Technical Supervisor	Diploma in Electrical Trade or equivalent	10 years experience in operation and maintenance of STP	2 visit in a month/any emergency required.

- 11. The contractor should exhibit a duty chart in the plant office the persons on duty in each shift. The agency will have to install a biometric attendance machine in the plant room and agency has to submit printout monthly attendance of personnel deployed through biometric system.
- 12. The contractor has to keep and maintain all units of the treatment plant and its surroundings neat, clean and tidy.
- 13. The contractor has to operate and maintain the plant as recommended in the manual and maintain proper logs and records of the work carried out daily in each of the three shifts.
- 14. The contractor shall maintain separate Log registers showing the following details. All the following registers shall be maintained by the head of the operating staff to be named by the contractor in writing to Engineer In charge
 - a) Register showing the timings of operation of each plant machinery, all sewage and sludge pumpsets, aeration motors, backwashing of filters, submersible mixers, internal recycling pump-sets, chemical metering pump-sets, disinfection pump-sets, etc;
 - b) Separate registers showing the works done on preventive maintenance for each equipment should be maintained.
 - c) A separate register showing details of each occurrence of all break downs of equipments, date and time of occurrence of break down, reasons for break down, action taken to set right and date and time of restoration of the equipment back to normal working shall be maintained by the contractor. An attendance register shall be maintained where in all personnel working in each shift shall sign.
 - d) A separate register shall be maintained in which the daily consumption of each chemical used for treatment and disinfection of the waste water shall be recorded correctly showing the KG of each chemical used or liters of chemical solution used.
 - e) Other registers required to be maintained as stipulated by the State Government Regulations with regard to the labour regulations, payment of EPF, ESI, safety of workmen, accidents register etc shall also be maintained by the contractor

- f) Mandatory regulations prescribed by the Government shall be followed by the contractor regarding labour and safety clauses which are already furnished in the tender, without any lapse, including those conditions, amended by these departments periodically.
- g) Contractor shall maintain a daily record of total wastewater inflow, total treated wastewater recycled and the quantity of wastewater discharged
- 15. The contractor should provide uniform, identification batch/card to all the staff and they should wear during working hours. The contractor to provide all safety equipments as required for operation and maintenance of STP.
- 16. The contractor should get antecedents of all its personnel verified from the police and submit the same to University. The contractor will not replace the personnel deployed without approval of University. In no case the STP should be left unmanned and contractor should arrange for replacement immediately.
- 17. The contractor should ensure the treated effluent quality to be always conforming to the standard prescribed in the tender.
- 18. Power for operation of STP and carrying out maintenance within University Campus shall be provided by University free of cost
- 19. Tools and tackles for the operation and maintenance should be provided by the Contractor.
- 20. All equipment, tools and plants supplied by the GGSIPU, If any, should be kept in good working condition and these should not be taken out of the premises without the written permission of the Engineer in charge. Electricity & water providing by GGSIPU.
- 21. Contractor shall provide a Notice board detailing precautions to be taken by operation personnel in work conformity with Industries and labour regulations.
- 22. Printing of registers, log sheets and stationery required for the maintenance of records has to be arranged by the contractor at his cost.
- 23. All consumables should be properly stocked for easy verification and easily accessible for receiving and storing the fresh stock whenever they are supplied at site. The contractor has to supply following minimum consumables at the site for consumption in daily operation rates of which are deemed to be included in rate for operation and maintenance:-

S. No.	Consumable	Unit	Minimum qty to be supplied per month
a)	Bacteria	Litre	15
b)	Enzyme culture	Litre	15
c)	Hypochloride	Litre	30
d)	Deformer	Litre	10
e)	Salt for softener	Kg	100
f)	Resin for softener	litre	5

In case the material is required in excess of the minimum material as mentioned above for successful operation of plant same shall be arranged by the contractor and nothing extra shall be payable on this

- account. All consumables like mobile oil, gear oil, dhoti, electrical tapes, packing, dori etc. are to be arranged by contractor and nothing extra shall be paid. Any other consumable required for successful operation which has not been specifically mentioned above shall be arranged by contractor at his own cost.
- 24. To carry out the daily / periodical lubrication and checking oil levels and changing oils periodically etc., for smooth uninterrupted rolling of units, the necessary lubricants, grease, water etc., have to be supplied by the successful Tenderer / contractor and the cost for the same is deemed to be included in the tender cost
- 25. Periodical cleaning/brushing of launders, channels, walkways etc., at all the units of the plant will be carried out by the contractor and the entire plant premises shall be kept neat and clean. The contractor should attend to the general cleaning of the plant premises by sweeping, dusting and removal of the screenings, grit and excess sludge etc
- 26. The D.O level in the aeration tank should be maintained at a minimum level of 1.5 mg/l and should preferably be 2.0 mg/l
- 27. The clarified effluent shall be dosed with chemicals. The effluent shall be chlorinated for disinfection. The dosage of chlorine shall be fixed such that after a minimum contact period of half hour residual chlorine shall be present in the range of 0.1 to 0.2 mg/l. Residual chlorine tests shall be carried out during every shift daily with starch iodide paper. The contractor shall submit fortnightly report on the treated water quality.
- 28. The contractor shall submit quarterly test report of both influent and treated effluent from approved laboratory for parameters of concerned to confirm the performance of STP in accordance to the tender. Samples for the testing shall be taken in presence of Engineer-in-Charge or his representative. University the right to get the effluent tested independently from any laboratory. In case test results fail the cost of testing shall be borne by the contractor. In case test results confirms the requirement, cost of testing shall be borne by University. A second sample shall be sent for testing, in case of failure of first sample and penalty of Rs.1000/day will be levied till the results are in conformity with the requirement. The cost of such testing till conformity will also be borne by contractor. The contractor shall also submit monthly test report from approved laboratory for parameters of concerned to confirm the performance of STP in accordance to the tender
- 29. The contractor shall be responsible for the safety of all the plant equipment and entire plant
- 30. The contractor should ensure that the team of operational staff would be available to operate the plant and equipments continuously even after completion of the Contract period till such time required by GGSIPU on payment for the same.
- 31. The contractor has to organize training course in the STP site for all his staff. The course content shall include brief introduction the Technologies for waste water treatment and recycling the water, disinfection, preparation of chemical solution of required concentration and dosage, functioning of aeration tanks, operation and maintenance of aeration equipments air blowers, submersible pump sets, safety measures to be followed in sewage treatment plants, safety in handling machinery, and electrical equipments, maintenance of log books, preventive maintenance works to be carried out for major equipments etc. The training shall be conducted in the presence of Engineer in charge or his representative in University Campus.
- 32. On completion of the maintenance period, the, treatment plant has to be handed over to the GGSIPU in good running condition. At the time of taking over by GGSIPU all the equipment and accessories in the treatment plant will be inspected and if any defects are noticed, the same will have to be rectified to the original running condition and only after which the unit will be taken over. On completion of the maintenance contract, the firm shall hand over the installation to the department in perfect working conditions and with a certificate that

- all the equipment, parts, operations/ safety system are safe and sound on the date of handling over the installation.
- 33. Firm has to quote rate for item no 1 for maintenance charge for carrying out maintenance which includes all overheads, uniform, tools and plant, consumable items or spare parts, incidental expenses or any other expenses related to execution of this work as per overall scope of contract and all statutory obligation of bidder not reimbursable/payable by the University. In case any firm quote maintenance charges as zero (0) or less than zero, the bid shall be summarily rejected and shall not be considered as responsive bid for financial evaluation/comparative.

34. Payment

- a) The payment shall be made on monthly basis.
- b) In case the release of the payment to the contractor is delayed due to any deficiency on the part of the contractor in furnishing the requisite documents/information, still the contractor shall ensure that the payment of wages to the employees shall be made by him for the subsequent month/months by 7th of every next relevant month without any default. The payment of wages shall be made in full for each month and any part payment to the employees shall not be accepted by the institute.
- c) Gratuity and paid Holiday 1.5 per month and 3 national closed holidays will be reimbursed by the University on production of challan towards payment to the concerned officials in respect to the services provided to the University i.e. only for the applicable period under this contract/tender.
- d) The University will reimburse the wages in conformity with the latest minimum wages notified by Labour Department, Govt. of NCT of Delhi from time to time on the basis of biometric attendance of manpower deployed. Presently the following are the rate of Wages notified by the Government.

Particulars	Skilled	Unskilled
Wages (in Rs.) for per day	652	538

- e) ESIC @ 4.75% or the rates as applicable from time to time will be reimbursed by the University on production of challan towards deposit of the requisite amount to the concerned office / in the Bank in respect to the services provided to the University.
- f) EPF @ 13% or the rates as applicable from time to time will be reimbursed by the University on production of challan towards deposit of Provident Fund to the concerned office / in the bank in respect to the services provided to the University.
- g) All statutory amounts/benefits paid by the Agency as per Labour Act to the manpower will be reimbursable, limited to the period of contract if applicable.

- h) Any payment made by the Agency over and above these minimum wages owing to market factors deemed to be included in the service charges quoted by the Agency in the Financial Bid. Nothing extra shall be paid on this account.
- i) The payment to the Manpower shall be under electronic Fund Transfer by the agency.
- j) Rates of the manpower wages shall be revised as and when minimum wage rates and other applicable allowances are revised by the Government. This shall be applicable from the date revised wages become applicable as per Govt. notification. University will accordingly reimburse the revised wages.
- k) The agency shall be required to disburse wages to the manpower, latest by 7th of every month through ECS (Electronic Clearance Services) and raise a detailed bill (Monthly Invoice) for amounts due to it thereafter and submit in triplicate with necessary particulars, including proof of payment of wages. The payment against this wage bill shall be made by the University in first phase each month.
- Payment shall be released by the University in two phases i.e. wages in the first phase and settlement of other components (ESI, EPF, GST deposits, premium) in the second phase. The reimbursement of EPF, ESI deposits, shall be made by the University only on production of relevant challan/paper submitted by the Agency.

Following documents are to be submitted for release of payment in the first phase:

- i) Bill with list of employees
- ii) Attendance Sheet generated through Bio-Metric System
- iii) Calculation Sheet/Salary Sheet (Details of net pay transferred)
- iv) Proof of payment through Bank to each manpower through ECS, the agency will have to attach payment transfer advice and copy of bank statement of that particular entry.
- v) Fortnightly labour report.

Following documents are to be submitted for release of payment in the second phase:-

- i. Proof of tax deposited with the GST Department upto current month. (enclosing certificate of monthly bifurcation of amount deposited in the challan.)
- ii. Proof of submission of EPF, ESIC alongwith worker wise list of contribution deposited by agency for EPF and ESIC.
- iii. EPFO TRRN Query i.e. payment confirmation against CRN number from EPFO website.
- m) Wherever any over payment comes to the notice of University the same shall be deducted by University from any sum due or which at any time thereafter may become due to the Agency under this tender/agreement and failing that under any other tender/agreement with university or from the security deposit of the tenderer.

- n) University reserve the right to carry out post payment audit and/or technical examination of the final bill including all supporting vouchers, abstract etc. University further reserves the right to enforce recovery of any overpayment wherever detected.
- o) If as a result such audit and technical examination, any overpayment is discovered in respect of any work done by the agency or alleged to have been done by the Agency under the tender/agreement contract, it shall be recovered by University from the agency by any or all the methods prescribed above or through a court of law as the situation warrants.
- p) If any underpayment is discovered, the amount will be duly paid to the agency by the university as and pointed out and found justified.
- q) Last payment of the agency will be cleared only after ascertaining clearance of any liability pending with the agency.
- 35. All necessary materials for the smooth operation of the plant and carrying out all maintenance works shall be provided by the contractor. At no time the running of plant or other works such as cleaning, lubrication, lighting etc., should be hampered for want of materials
- 36. Malperformance of STP shall result in levy of penalty. On such events the Contractor shall furnish a written explanation furnishing the causes and corrective measures taken to restore satisfactory performance of the plant. The contractor will attend to complaint within 04 hours of complaint lodged and make functional on same day. If equipment cannot be made operational within same day due to fault/failure of major parts it will be repaired within 72 hours otherwise a penalty @ Rs.1000/- per day beyond 72 hours shall be leived and recovered from running bills. The agency shall intimate EE or his representative of major fault and give the timeline to make the equipment operational. In case the STP is not functional for more than 24 hrs, a penalty of Rs. 5000/day shall be levied on the agency till the STP is made operational. The Agency will have arrange for disposal of Sewage outside university. Nothing extra shall be paid for disposal of sewage.
- 37. GGSIPU may arrange for inspection of plant by an expert in wastewater treatment if need be to avoid such incidents and cost there of shall be recovered in monthly bill payable to Contractor.
- 38. For all electrical motors, pumps, air blowers, diffused air membrane aeration system or any other mode of aeration system deployed, sluice valves, Motorized control center, transponders if any, chlorinating device and all other electrical and mechanical equipments, fixtures and fittings shall be subjected to preventive maintenance and for this a Computerized Planned Preventive Maintenance Schedule shall be prepared by the Contractor and got approved from Engineer-in-charge which shall be systematically practiced and implemented by the Contractor. A list of chemicals used per day and total chemicals used per month shall be supplied to the Engineer-in-charge in the form of a spread sheet statement.
- 39. A monthly spread sheet statement shall be submitted by the contractor showing the daily quantum of treated effluent supplied per day from the Sewage Treatment Plant to the Land. This data shall also be stored in computer file. An inventory of preventive maintenance and breakdown maintenance works carried out which necessitated changing of spare parts for any equipment shall be supplied every month by the contractor to the engineer-in-charge
- 40. A statement showing all the actual hours of working of all electrical motors.
- 41. Repair of all equipment, plant, motors, blower, valves, strainers, softeners, filter, electrical panels, aeration system, dosing systems is deemed to be included in the rate for operation and maintenance under item no.1 of schedule of quantity except for otherwise specifically provided in schedule of quantity for payment separately. The item no.1 also includes cost of all repairs, consumables as required for operation/maintenance/upkeep/recording and reporting/uniform etc. except for otherwise specifically provided in schedule of quantity for payment separately.

- 42. Dismantling the existing motor set and reassembling the same after repairing of motor replacement of DOI bush, thrust bearing plate, Cable & Oil seal, nut-bolts and remetaling, turning, finishing shaft, remetaling of impeller including testing and commissioning all complete including in item Sr. No. 1 of Schedule of Quantity. However, rewinding and replacement of mechanical & shaft, if carried out, shall be considered for payment under item no. 4 & item no. 5 of schedule of quantity only once. In case of requirement of rewinding and replacement of shaft more than once, same shall be carried out by contractor at his/her own cost.
- 43. The firm shall be responsible for any accident that occurs due to inadequate maintenance
- 44. The firm shall provide the safety equipments i.e. Safety Mask, Fire Extinguishers (ABC Type & CO2 Type) Oxygen Cylinder, Rope, Safety Belt etc for O & M of STP and as required under applicable law/act/rule and provision related to occupational hazard safety applicable to O&M of STP time to time.
- 45. Contractor shall ensure proper ventilation of STP.
- 46. The rates quoted shall be inclusive of all type of taxes, duties and nothing extra shall be paid for increase/decrease of these taxes and duties etc. during the currency of the contract. All the statuary deductions or any other deduction as applicable from time to time and at the rate as applicable shall be made from bills. Nothing extra will be paid on account of GST or any other Tax. All Consumable material supplied by the contractor to be delivered JE, UWD, GGSIPU and same issued for site by the JE, GGSIPU
- 47. The contractor will ensure the disbursement of wage as per minimum wages act through ECS cheque by 7th of every month and documentary evidence of salary, EPF and ESIC shall be submitted along with bill. EPF and ESIC contribution shall be reimbursed to agency on production of proof of payment.
- 48. It is the responsibility of the contractor to make alternative arrangement, in case, any staff proceeds on leave/for reliever duty, on failure, the recovery shall be made on this account. In case of any absence of the particular staff for continuous 3 days or more than 3 days in a month from the above, the recovery shall be made on the following rates.
 - **a.** Operator for 8 hours duty @ Double the minimum Wage.
 - **b.** Helper / Khallasi for 8 hours duty @ Double the minimum Wage.
- 49. The contractor has to abide by various statutory acts of Government regarding facilities to be provided to the workmen, labour, staff employed under minimum wages act, workmen compensation act, factories act, ESI, EPF etc.
- 50. The agency will Prepare operation and maintenance including preventive maintenance schedule for each equipment and got it for approved from Engineer-in-Charge. A step by step operation instruction shall be prepared and included in this operation and maintenance manual. The maintenance manual shall provide trouble shooting charts for each equipment, list of essential spares to be stocked for each equipment. One copy of this step operational procedure and a list of preventive maintenance schedule activities for each equipment shall be laminated & displayed in STP for guidance to operators. Approval of operation and maintenance manual by Engineer-in-Charge does not dissolve the agency of its responsibility to carryout successful operation and maintenance of STP and in case any other operation/activity is required to successfully operate/maintain STP where is not mentioned in O&M manual, same has to be carried out by agency and nothing extra shall be payable.
- 51. The agency will have to follow all the Sewage treatment process. Failure to follow the process will lead to levy of penalty 5000 per month per process.

52.	Agency has to prepare two set of flow diagram on minimum A2 size showing all hydraulic levels, layout plan
	drawings of the treatment plant has to be prepared showing all treatment units, inter connecting pipe lines
	with sizes and their routing together with a brief write up explaining the treatment process. One set of these
	drawings have to be laminated and mounted on 12 mm thick ply wood board and displayed in Treatment
	plant.

53.	The contractor shall install the Bio Metric machine for recording the attendance of the engaged staff doing the
	operation and maintenance of STP Plant.

SE/UWD

Sewage Treatment Plant Process

PROCESS DESCRIPTION

The Raw Effluent from various streams like Domestic and kitchen wastes is treated through various treatment units as described below.

The treatment is in two stage i.e., Pre treatment and Post treatment and is based on extended aeration process.

PRE TREATMENT

Effluent from various streams passes through mechanically raked SS flat Screen provided with opening of 25 mm. After the Screen, the Effluent enters into the manually cleaned Grit Chamber where Grit of 0.15 mm and above size is held. After the Grit Chamber, the effluent flows to the Oil and Grease Traps where the oil and grease is removed from the Effluent. The Effluent free from Grit, Oil and Grease enter the Equalization tank.

POST TREATMENT

The Effluent from the equalization tank is pumped into the Aeration tank working on the principle of diffused aeration with the help of Fine Bubble Jet diffusers. From Aeration Tank, the flow is led to secondary settling tank. The settled sludge from the settling tank is drawn by Non-Clog pumps and taken back to aeration tanks for maintaining the required MLSS and surplus sludge is led to sludge concentration unit. The sludge concentration process is activated with the help of Polymers Dosing. Concentrated sludge is first taken to filter press for preparation of manure cake and residual, if any, which cannot be used for cake formation shall be disposed off for offsite solid disposal treatment. The effluent from the sludge concentration unit is taken back to Aeration tank for further treatment.

The clarified liquid from the Plate Settler is withdrawn over weir into the launder and from launder it is taken to chlorine contact chamber where it is disinfected with the help of hypochlorite solution.

The disinfected effluent from the chlorine contact chamber is pumped through Multigrade Filter and finally through Activated Carbon filter collected in a treated effluent collection tank. Treated water, will be pumped to the irrigation water supply lines for horticulture use. Part of the treated effluent will be taken to the Softener Plant. This is pumped to OH tank for AC cooling tower makeup.

Schedule of Quantities

Name of Work: RMO GGSIP University, Dwarka Campus, New Delhi.

Sub Head: Operation and Maintenance of STP.

S. No.	Description of work	Unit	Qty	Rate(Rs./Unit)	Amount in Rs/-
1	Operation and maintenance of 500 KLD sewage treatment plant including all machineries, Pump, Panels, Cables, Pipes, Valves filters, softeners & instruments etc. as per inventory including supplying of all required consumable items, spare parts alongwith repair/replacement of defective parts except for replacement/ repair provided in item no 2, 3, 4 & 5 below for successful running of sewage plant complete including removal of solid material (waste) from filter press area to the designated place as per directions of Engineer-in-Charge. (Wage of manpower deployment i.e. one operator round the clock & one helper in general shift shall be reimbursed separately on the basis of bio metric attendance and minimum wage notified time to time by GNCT Delhi.) (Agency/Firm to Quote the rate for operation and maintenance including all overheads, profit, uniform, tools and plant, consumable items or spare parts, incidental expenses or any other expenses but including				
	wages of operator and helper)	Month	12		
2	Replacement of activated carbon of coconut shell 900 iodine or better in the activated carbon filter including all required tools/tackles, manpower etc. as per directions of Engineer-in-Charge.		1000.00		
3	Replacement of multigrade sand media of suitable and approved quality in multigrade sand filter including all rquried tools/tackles, manpower as per directions of Engineer-in-Charge.	Kg Kg	2300.00		
4	Rewinding of motor with same or better material all complete including testing & commissioning including taking away the dismenteled material or scrap and as per direction of Engineer-in-Charge.	8			
a)	Air blower 20 HP (3 Phase ABB Make)	each	1.00		
b)	Submersible pump motor of 4.5KW/3.7 KW Coupled with each other (Grundfos Make)	each	1.00		
c)	Sludge Disposal pump motor 5 HP (3 Phase Kriloskar Make)	each	1.00		

d)	Irrigation water lifting pump motor 10 HP (3 Phase Kriloskar Make)	each	1.00	
e)	Filter press feed pump motor 1.5 HP (3 Phase ABB Make)	each	1.00	
f)	Softener Feed pump motor 3 HP (3 Phase Kriloskar Make)	each	1.00	
g)	Hydro pneumatic pump motor 3 KW (3 Phase Grundfos Make)	each	1.00	
h)	Filter feed pump 7.5 HP (3 Phase Kriloskar Make)	each	1.00	
5	Replacement of mechanical seal with nut bolt etc. with same or better quality all complete including testing & commissioning including taking away the dismentled material or scrap and or a s per direction of Engineer-in-Charge			
a)	GRUNDFOS-HYDRO PNEUMETIC MOTORS (3KW)	each	2.00	
b)	GRUNDFOS - SLUDGE PUMP (10 HP)	each	2.00	
	Total			

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