



INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI - 110016

NAME OF WORK	:	Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi
ESTIMATED COST	:	Rs.23,38,136/-
EMD	:	Rs.46,763/-
N.I.T. No.	:	9547/12/EW/IITD/2019-20
Date of Opening	:	09-07-2019 at 3:00 PM

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



Name of Work:- Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi

NIT for the above work has been prepared with the following:

1	Amount of NIT	:	Rs. 23,38,136/-
2	Earnest money	:	Rs.46,763/-
3	Completion time	:	120 days
4	Last date of submission (online)	:	Upto 3:00 PM of 08-07-2019
5	Date of opening	:	09-07-2019 at 3:00 PM
6	Form of NIT	:	IITD - 8
7	Schedule applicable	:	DSR/Market Rate
8	Material stipulated	:	As per Schedule of Work
9	Chargeable head	:	PLN-05
10	Estimate no.	:	IITD/DB/9547
11	Work code no.	:	WO3290
12	NIT No.	:	9547/12/IITD/IE/2019-20
13	Type of work	:	Maintenance works including works of up-gradation, aesthetic, special repair, addition/alteration.

Certified that this NIT contains 1 to 57 pages.

NIT amounting to Rs.**23,38,136/-** is approved.

AEE (E)

Sr. F.I.

Sr. TS [Plg]

Executive Engineer [E]

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI – 110016
NOTICE INVITING E-TENDER

IITD/WORKS (SP-2381)/2019

Executive Engineer [Electrical], Indian Institute of Technology Delhi, Hauz Khas, New Delhi – 100016 [Phone No. 011-26591742] on behalf of Board of Governors invites online **Item Rate Tender** from Firms / Contractors of repute for the following work:

1	Name of Work	:	Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi
2	NIT No.	:	9547/12/EW/IITD/2019-20
3	Estimated cost	:	Rs 23,38,136/-
4	Earnest Money	:	Rs.46,763/-
5	Period of completion	:	120 days
6	Last date & time of bid submission	:	Upto 3:00 PM of 08-07-2019
7	Performance Bank Guarantee	:	5% of the tendered amount

The bid forms and other details may be downloaded from Central Public Procurement Portal <http://eprocure.gov.in/eprocure/app>. Aspiring Bidders who have not enrolled / registered in e-procurement should enroll / register before participating through the website <http://eprocure.gov.in/eprocure/app>. The portal enrolment is free of cost. Bidders are advised to go through instructions provided at 'Instructions for online Bid Submission'.

Bidders can access Quotation / tender documents on the website (For searching in the NIC site, kindly go to Quotation Search option and type 'IIT'. Thereafter, Click on "GO" button to view all IIT Delhi Quotations). Select the appropriate Quotation / tender and fill them with all relevant information and submit the completed Quotation / tender document online on the website <http://eprocure.gov.in/eprocure/app> as per the schedule given in the next page.

No manual bids will be accepted. All bids (both Technical and Financial should be submitted in the E-procurement portal).

**Executive Engineer [E],
For & on Behalf of BOG, IIT Delhi**

Ch. Head: PLN - 05
Work code- WO3290

C.....Nil

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O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



Copy to: -

1. Institute Engineer
2. D.A. (Works Accounts) - for opening of tenders in the office of D.R. [SPS]
3. A.E.E. (E) Plg.
4. Sr. F/I
5. D.R. (A/Cs)
6. D.R. [SPS]
7. Notice Boards.
8. Office Copy
9. Web site Administrator, IITD

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



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**SCHEDULE**

1	Name of Organisation	:	Indian Institute of Technology Delhi
2	Tender / Quotation Type [open / limited / EOI / auction / single]	:	Open
3	Tender / Quotation Category [services / goods / works]	:	Goods/Works
4	Type / Form of Contract [work / supply / auction / service / buy / empanelment / sell]	:	Work & Supply
5	Product Category [civil works / electrical works / fleet management / computer systems]	:	Fire Alarm & detection System
6	Is Multi Currency Allowed?	:	No
7	Date of issue / publishing /start	:	19/06/2019 At (16:00 Hrs)
8	Document download start date	:	19/06/2019 At (16:00 Hrs)
9	Document download end date	:	08/07/2019 At (15:00 Hrs)
8	Last date & time of uploading of bids	:	08/07/2019 At (15:00 Hrs)
9	Date & time of opening of Technical Bids	:	09/07/2019 At (15:00 Hrs)
10	Tender fee	:	Rs.46,763/- [For EMD]
11	EMD	:	(To be paid through RTGS/NEFT. IIT Delhi Bank details are as under: Name of the Bank A/C : IITD Revenue Account SBI A/C No. : 10773572622 Name of the Bank : State Bank of India, IIT Delhi, Hauz Khas, New Delhi-110016 IFSC Code : SBIN0001077 MICR Code : 110002156 Swift No. : SBININBB547 (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II)
12	No. of covers [1/2/3/4]	:	02
13	Address for communication	:	Executive Engineer (Electrical), Works Organization, Hauz Khas, IIT Delhi, New Delhi - 110016
14	Contact No.	:	011- 2659 1742, 1746
15	E-mail address	:	a26335@admin.iitd.ac.in , a26984@admin.iitd.ac.in , a25891@admin.iitd.ac.in

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INSTRUCTIONS FOR ONLINE BID SUBMISSION

As per the directives of Department of Expenditure, this Quotation / tender document has been published on the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>). The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at:

<http://eprocure.gov.in/eprocure/app>

REGISTRATION

- 1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL:<http://eprocure.gov.in/eprocure/app>) by clicking on the link "Click here to Enroll". Enrolment on the CPP Portal is free of charge.
- 2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.
- 4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / TCS / nCode / eMudhra etc.), with their profile.
- 5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSCs to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their userID / password and the password of the DSC / e-Token.

SEARCHING FOR QUOTATION /TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active Quotations / Tender by several parameters. These parameters could include Quotation ID, organization name, location, date, value, etc. There is also an option of advanced search for Quotations, wherein the bidders may combine a number of search parameters such as organization name, form of contract, location, date, other keywords etc. to search for a Quotation published on the CPP Portal.
- 2) Once the bidders have selected the Quotations they are interested in, they may download the required documents / Quotation schedules. These Quotations can be moved to the respective 'My Quotations' folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the Quotation document.
- 3) The bidder should make a note of the unique Quotation ID assigned to each Quotation / Tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the Quotation document before submitting their bids.
- 2) Please go through the Quotation / Tender advertisement and the Quotation / Tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in

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which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

- 3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the Quotation document / schedule and generally, they can be in PDF / XLS / RAR / DWF formats. Bid documents may be scanned with 100 dpi with black and white option.
- 4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Space" area available to them to upload such documents. These documents may be directly submitted from the "My Space" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

SUBMISSION OF BIDS

- 1) Bidder should log into the site well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the Quotation document.
- 3) Bidder has to select the payment option as "offline" to pay the Quotation fee / EMD as applicable and enter details of the instrument.
- 4) A standard BoQ format has been provided with the Quotation document to be filled by all the bidders. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.

OR

In some cases Financial Bids can be submitted in PDF format as well (in lieu of BOQ).

- 5) The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 6) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done.
- 7) The uploaded Quotation documents become readable only after the Quotation opening by the authorized bid openers.
- 8) Upon the successful and timely submission of bids, the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.
- 9) Kindly add scanned PDF of all relevant documents in a single PDF file of compliance sheet.

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ASSISTANCE TO BIDDERS

- 1) Any queries relating to the Quotation document and the terms and conditions contained therein should be addressed to the Quotation Inviting Authority for a Quotation or the relevant contact person indicated in the Quotation.
- 2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk. The contact number for the helpdesk is 1800 233 7315.

GENERAL INSTRUCTIONS TO THE BIDDERS

- 1) The Quotations will be received online through portal <http://eprocure.gov.in/eprocure/app> . In the Technical Bids, the bidders are required to upload all the documents in .pdf format.
- 2) Possession of a Valid Class- III Digital Signature Certificate (DSC) in the form of smart card/e-token in the company's name is a prerequisite for registration and participating in the bid submission activities through <https://eprocure.gov.in/eprocure/app>. Digital Signature Certificates can be obtained from the authorized certifying agencies, details of which are available in the web site <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".

Bidders are advised to follow the instructions provided in the 'Instructions to the Bidder' for the e-submission of the bids online through the Central Public Procurement Portal for e Procurement at <https://eprocure.gov.in/eprocure/app>



INFORMATION AND INSTRUCTIONS TO BIDDERS FOR E-TENDERING

Executive Engineer (E), Indian Institute of Technology, Hauz Khas, New Delhi-16 (Phone No. 011-26591742) on behalf of Board of Governors invites online **Item Rate Tender** from Firms/ Contractors of repute for the following work:

Sl. No.	N.I.T. No.	Name of work & Location	Estimated cost put to bid	Earnest Money	Period of completion	Last date & time of submission of bid (online mode)	Time & date of opening of Technical Bid	Time & date of opening of financial bid
[1]	[2]	[3]	[4]	[5]	[7]	[8]	[9]	[10]
1	9547/12/EW/IITD/2019-20	Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi	23,38,136.00	46,763.00	120 days	Upto 3:00 PM of 08-07-2019	09-07-2019 at 3:00 PM	To be Intimated after assessing Technical bid.

- The successful bidders shall be required to submit a performance guarantee of 5% of the tendered amount in the form of Bank Guarantee or F.D.R. from a Nationalized / Scheduled Bank within 15 days of issue of letter of intent before award of work. In case of failure by the Contractor to submit the performance guarantee within the specified period, full earnest money will be forfeited and the tender shall be treated as null and void. **The performance guarantee shall be initially valid up to the stipulated date of completion plus 60 (Sixty) days beyond that.**
- Contractors who fulfill the following requirements shall be eligible to apply. Joint ventures are not accepted.
 - Firms/Contractors should have satisfactorily completed one similar work of value not less than **Rs.18,71,000.00** or two similar works each of value not less than **Rs. 14,03,000.00** or three similar works each of value not less than **Rs. 9,35,000.00** during last 7 years ending previous day of last date of submission of bids.

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ii) **Earnest Money of Rs. 46,763/-** to be deposited on-line as indicated in Schedule

3. Similar work means Installation of Wet Riser system in buildings.

4. **The intending bidder must read the terms and conditions [both commercial & Additional] & IITD - 6 carefully** which will be the part of the Contract. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
5. Information and Instructions for bidders posted on website shall form part of bid document.
6. 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 e-procure.gov.in.
7. But the bid can only be submitted after depositing requisite tender fee and EMD as specified in the schedule.
8. Copy of enlistment order and certificate of work experience and other documents as specified in the Press Notice / web notice shall be scanned and up-loaded to the e-Tendering website within the period of bid submission. However, certified / original copy of all the scanned and up-loaded documents as specified in press notice web / notice shall have to be submitted by the lowest bidder only within a week physically in the office of e-tendering authority.
9. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited requisite EMD and other documents scanned and uploaded are found in order.
10. Completion certificates are required to be got issued by an officer not below the rank of Executive Engineer of similar works completed by the Firm. The work experience certificates submitted by the bidders shall clearly indicate that:
 - a. The similar work executed shall be **as '3' above**
 - b. The completed cost of the work
 - c. Actual date of completion of the work
11. Attested copy of registration certificates to be submitted. Registration of firms/ Contractors must be valid on the day of submission of Tenders or extended date of submission of Tenders whichever is later.
12. Work means only work under Government/ Public Sector Undertaking / Central Autonomous bodies.
13. The value of executed work shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of submission of financial bid.
14. IITD is committed to follow the principle of transparency, equity and competitiveness in public procurement. Before submission of bid, **each bidder should sign integrity pact at respective places** and submit the bid. If duly signed integrity pact is not submitted by bidder, such bid shall not be considered.
15. Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.
16. When bids are invited in two / three stages systems and if it is desired to submit revised financial bid it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.
17. The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

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18. The bid submitted shall become invalid if:

- a. The bidder is found ineligible.
- b. The bidder does not upload all the documents (including GST registration and EPF & ESI along with up to date filed return), work experience as desired as stipulated in the bid document including the undertaking/ declaration.
- c. EMD not deposited through RTGS/NEFT as specified.
- d. Not registered with EPFO & ESIC.

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

1. **Annexure 1 & 2 [duly filled in preferably typed] and got signed** [N.B. – “MSME firms registered in NSIC under PP policy are exempted from payment of EMD for supply of goods and services only” Hence, there is **no applicability of EMD exemption** for this work]
2. Attested certificate of work experience as desired. **[Experience certificate issued by any Private Organisation shall not be considered]**
3. Certificate of Registration for GSTIN
4. Affidavit as per Notice Inviting Tender Condition 1.2.2. (To be submitted on stamp paper)
5. Acceptance to execute INTEGRITY PACT [see integrity pact]
6. EPF & ESI Registration proof with up to date challan
7. IITD 7 / 8 duly signed. [at page-23]
8. Valid Electrical Licence in the name of the contractor
9. Any other document as specified in the NIT

**Executive Engineer [Electrical]
For & on Behalf of BOG, IIT Delhi**

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



INDIAN INSTITUTE OF TECHNOLOGY DELHI NOTICE INVITING E-TENDER

Item rate tenders are invited on behalf of The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 110016 from Firms / Contractors of repute dealing with Fire Fighting System **work** as per details given below for the work of Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi.

- 1.1 The work is estimated to cost **Rs. 23,38,136/-** This estimate, however, is given merely as a rough guide
1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.

For composite bid, besides indicating the combined estimated cost put to tender, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

- 1.2 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, of having satisfactorily completed similar works of magnitude specified below:-

Criteria of eligibility for submission of bid documents.

1.2.1 Criteria of eligibility for CPWD as well as non-CPWD contractors.

Three similar works each of value not less than **Rs.18,71,000.00** or two similar work each of value not less than **Rs.14,03,000.00** or one similar work of value not less than **Rs.9,35,000.00** in last 7 years ending previous day of last date of submission of bids.

1.2.2 To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under :-

"I / We undertake and confirm that eligible similar works(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for bidding in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee (Scanned copy to be uploaded at the time of submission of bid)"

2. **Agreement shall be drawn with the successful bidders on prescribed Form No. IITD 7/8 which is available as IIT Delhi Publication. Bidders shall quote their 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 **120 days** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
5. 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

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documents except Standard General Conditions of Contract Form can be seen from the web Site **e-procure.gov.in**.

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 tender 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 tender as notified.
8. If it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the tender submitted earlier shall become invalid.
9. Earnest Money as specified to be paid through RTGS / NEFT.
IIT Delhi Bank details are as under:
Name of the Bank A/C : IITD Revenue Account
SBI A/C No. : 10773572622
Name of the Bank : State Bank of India, IIT Delhi,
Hauz Khas, New Delhi-110016
IFSC Code : SBIN0001077
MICR Code : 110002156
Swift No. : SBININBB547
(This is mandatory that UTR Number is provided in the on-line quotation/bid. Kindly refer to the UTR Column of the Declaration Sheet at Annexure-I)

Interested contractors who wish to participate in the bid has also to make following payments within the period of bid submission:

- (i) Copy of Enlistment Order and certificate of work experience and other documents as specified in the press notice shall be scanned and uploaded to the e-tendering website within the period of bid submission.
10. The bid submitted shall become invalid, if:
 - a) The bidder is found ineligible.
 - b) The bidder does not upload all the documents (including GSTIN/Technical bid) as stipulated in the bid document.
 - c) EMD not deposited as specified.
 - d) Not registered with EPFO & ESIC.
11. The contractor whose bid is accepted will be required to furnish **performance guarantee of 5% (Five Percent)** of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of Deposit at Call receipt of any scheduled bank / Banker' 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 irrevocable Bank 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 Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and subsoil (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 bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & 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 bid by a bidder 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

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- 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 Board of Governors does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidder shall be summarily rejected.
 14. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
 15. The competent authority on behalf of the Board of Governors reserves to himself the right of accepting the whole or any part of the bid and the bidder shall be bound to perform the same at the rate quoted.
 16. The contractor shall not be permitted to bid for works in the IITD responsible for award and execution of contracts, in which his near relative is posted a 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 the IIT Delhi. Any breach of this condition by the contractor would render him liable to be debarred from bidding process in future in IIT Delhi.
 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 prior permission of the Government of India in writing. This contract 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 bid or engagement in the contractor's service.
 18. The bid for the works shall remain open for acceptance for a period of **ninety [90] days from the date of opening of financial bids**, if any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the re-bidding process of the work.
 19. This notice inviting bid shall form a part of the contract document. The successful bidder / contractor, on acceptance of his bid by the Accepting Authority shall **within 15 days** from the stipulated date of start of the work, sign the contract consisting of:-
 - a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - b) Standard IITD Form -7/8 or other Standard IITD Form as applicable.
 20. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as to be submitted physically in IIT Delhi, if so desired by the accepting authority, then the bid submitted shall become invalid and the IIT Delhi shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidder shall not be allowed to participate in the bidding process of the work.

C.....Nil

I..... Nil

O..... Nil



INTEGRITY PACT

To

.....,

.....,

.....

Sub: NIT No. **9547/12/EW/IITD/2019-20** for the work of **Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi**

Dear Sir,

It is here by declared that IITD 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 the tender/bid documents, failing which the tender/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 IITD.

Yours faithfully,

Executive Engineer

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



[TO BE SUBMITTED DULY SIGNED BY THE BIDDER ALONGWITH BID DOCUMENTS]

To

Executive Engineer (Elect.),
IIT Delhi, Hauz Khas,
New Delhi – 110016

Subject: Submission of Bid for the work of **“Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi**

Dear Sir,

I / We acknowledge that IITD. 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 / bid 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 IITD. 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, IITD shall have unqualified, absolute and unfettered right to disqualify the tenderer /bidder and reject the tender/bid in accordance with terms and conditions of the tender/bid.

Yours faithfully,

(Duly authorized signatory of the Bidder)

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



[To be signed by the bidder and same signatory competent / authorized to sign the relevant contract on behalf of IITD]

INTEGRITY AGREEMENT

This Integrity Agreement is made at on this day of..... 20.....

BETWEEN

The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 represented through **Executive Engineer (Elect.)**, IIT Delhi

....., (Hereinafter referred as the '**Principal/Owner**',

(Address of Division)

'**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

.....

(Name and Address of the Individual/firm/Company)

through
(Hereinafter referred

(Details of duly authorized signatory)

to as the "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

Preamble

WHEREAS the Principal / Owner has floated the Tender (NIT No. **9547/12/EW/IITD/2019-20**) (hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract for "**Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi**"

(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 contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal / Owner

- 1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:
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.

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



- (a) 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.
- (b) 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 (PoC 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.
- 3) 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 (PoC 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 Bidder(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/PoC 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

C.....Nil

I..... Nil

O..... Nil



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 practices **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 others 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 of 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 rights 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 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 years 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.

C.....Nil

I..... Nil

O..... Nil



- 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-contractors/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 6 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 of IITD.

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 intentions.
- 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, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



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/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF 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 / Owner)

.....
(For and on behalf of Bidder / Contractor)

WITNESSES:

1.
(Signature, name and address)

2.
(Signature, name and address)

Place:

Dated :

C.....Nil I..... Nil O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



INDIAN INSTITUTE OF TECHNOLOGY DELHI
HAUZ KHAS, NEW DELHI - 110016
Percentage Rate Tender / Item Rate Tender & Contract for Works

Tender for the work of **“Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi”**

(A) (I) To be submitted online by **Upto 3:00 PM of 08-07-2019**

(II) To be opened on **09-07-2019 at 03:00 PM** online

e-TENDER

I / We have read and examined the Notice Inviting Tender, schedule, A, B, C, D, E & F, Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, Clauses of Contract, Special conditions, Schedule of Rate & 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 Board of Governors, IIT Delhi within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing 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 respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for ninety (90) days from the due date of its opening / ninety days from the date of opening of financial bid in case tenders are invited on 2/3 envelop system (**strike out as the case may be**) and not to make any modification in its terms and conditions.

A sum of **Rs 46,763.00** is hereby deposited in IIT Delhi Revenue Account No. 10773572622 as earnest money. If I / We, fail to furnish the prescribed performance guarantee within prescribed period I / We agree that the said The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 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 the work as specified, I / We agree that The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 16 or the 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 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 tender form. Further, I / We agree that in case of forfeiture of Earnest Money & Performance Guarantee as aforesaid I / We shall be debarred for participation in the re-tendering process of the work.

I / We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I / We shall be debarred for tendering in IIT Delhi in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

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.

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



Dated:

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for an on behalf of The Board of Governors, IIT Delhi, Hauz Khas, New Delhi - 110016 for a sum of (Rupees.....).

The letters referred to below shall form part of this contract agreement:-

- (a)
- (b)
- (c)

For & on behalf of Board of Governors, IIT Delhi

Signature

Dated:

Designation

C.....Nil I..... Nil O..... Nil



PROFORMA OF SCHEDULES

[Operative Schedules to be supplied separately to each intending tenderer]

SCHEDULE 'A'

Schedule of quantities (enclosed)

SCHEDULE 'B'

Schedule of materials to be issued to the contractor

S.No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
← Nil →				

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S.No.	Description	Hire charges per day	Place of Issue
← Nil →			

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any.

Nil

SCHEDULE 'E'

Reference to General Conditions of contract [GCC]

C.....Nil I..... Nil O..... Nil



1	Name of work	:	Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi
2	Estimated cost of work	:	Rs. 23,38,136/-
3	Earnest Money	:	Rs. 46,763/-
4	Performance Guarantee	:	5 percent of tendered value
5	Security Deposit	:	5 percent of tendered value

SCHEDULE 'F'**GENERAL RULES & DIRECTIONS**

: Officer inviting tender

Maximum percentage for quantity of items of work to be executed beyond wh rates are to be determined in accordance with Clauses 12.2&12.3	:	See below
Definitions:		
2[v] Engineer – in - charge	:	Executive Engineer [Elect]
2[vi] Accepting Authority	:	Executive Engineer [Elect]
2[x] Percentage on cost of materials and labour to Cover all overheads and profits	:	15 percent
2[xi] Standard schedule of rates	:	Market Rate
2[xii] Department	:	E & W, IIT Delhi
9[ii] Standard IITD Contract Form	:	General Conditions of Contract 2010, IITD Form 7/8-2010 modified & Corrected up to date of submission of tender

Clause 1:

[i] Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	:	15 days
[ii] Maximum allowable extension with late fees @ 0.1% per day of performance guarantee amount beyond the period provided in (i) above	:	1 to 15 days

Clause 2:

Authority for fixing compensation under clause 2	:	Institute Engineer
--	---	--------------------

Clause 2 A:

Whether Clause 2A shall be applicable	:	No
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Clause 5:

Number of days from the date of issue of letter of award for reckoning date of start	:	10 [ten] days
--	---	---------------

Milestone(s) as per table given below:-

Sl. No.	Description of Milestone (Financial)	Time allowed in days (from date of start)	Amount to be with-held in case of non-achievement of mile stone

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.



N O T A P P L I C A B L E			

Time allowed for execution of work	:	120 days
Authority to decide:		
Extension of time	:	Institute Engineer
Rescheduling of mile stones	:	Institute Engineer
Clause Applicable 6 or 6A:	:	Clause 6A
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	:	Not Applicable
Clause 10 A:		
List of testing equipment to be provided by the contractor at site lab	:	As desired by the Engineer-in-charge relating to the work
Clause 10B(ii):		
Whether Clause 10 B (ii) shall be applicable	:	No
Clause 10C:		
Component of labour expressed as percent of value of work	:	15 percent

Clause 10CA:

S.N.	Material covered under this clause	Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed	Base Price of all Materials covered under clause 10 CA*
1			
2			
3		Nil	
4			

* Base price of all the materials covered under clause 10 CA is to be mentioned at the time of approval of NIT.

Clause 10CC

Clause 10 CC to be applicable in contracts with stipulated period of completion exceeding the period shown in next column	:	Not applicable
Schedule of component of other Materials, Labour, POL etc. for price escalation	:	--
Component of civil (except materials covered under clause 10CA)/ Electrical construction Materials expressed as percent of total value of work	:	Not Applicable
Component of Labour expressed as percent of total value of work	:	N.A.
Component of P.O.L. expressed as percent of total value of work	:	Not Applicable

C.....Nil

I..... Nil

O..... Nil



Clause 11

Specifications to be followed for execution of work	:	CPWD General specifications for Electrical work Part-V (Wet riser & down Comer System 2018) and other relevant parts as applicable with upto date correction
---	---	--

Clause 12

Type of work	:	Maintenance works including works of up-gradation, aesthetic, special repair, addition/alteration
Clause 12.2. & 12.3		
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work	:	30 percent
Clause 12.5		
Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for foundation work	:	100 percent

Clause 16

Competent Authority for deciding reduced rates	:	Institute Engineer
--	---	---------------------------

Clause 18

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

1.....	2.....	3.....
4.....	5.....	6.....
Nil		
7.....	8.....	9.....

Clause 36 (i)

Requirement of Technical Representative(s) and recovery Rate

Sr. No.	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/ Technical Representative)	Minimum Experience (Years)	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 36(I)	
						Figures	Words
Nil							

Assistant Engineers retired from Government services that are holding diploma will be treated at par with Graduate Engineers

C.....Nil I..... Nil O..... Nil



COMMERCIAL AND ADDITIONAL CONDITIONS

1.0 General

1.1 This specification covers manufacture, testing as may be necessary before dispatch, delivery at site, all preparatory work, assembly and installation, testing, commissioning, guarantee, etc. for the following work :

1.2 Location: The equipments will be installed Jhanskar Hostel Block, IIT Delhi

The work shall be executed as per CPWD's General Specifications for Electrical Works Part – I [Internal] 2005, Part – II [External] – 1994, Part – IV [Sub Station] – 1982, Part – V [Wet Riser and Sprinkler System for Fire Fighting Installations] – 2006, Part – VI [Fire Alarm System] IE Rules, Indian Standards amended upto date and as per direction of Engineer-in-charge. The additional specifications are to be read with above and in case of any variations, specifications given alongwith the tender shall apply.

1.3 The tenderer should in his own interest visit the site and get familiarize with the site conditions before tendering.

1.4 No T&P shall be issued by the Department and nothing extra shall be paid on account of this.

2.0 Commercial Conditions:

2.1 Type of contract: The work to be awarded by this tender shall be treated as indivisible works contract.

2.2 Submission and opening of Tenders:

The tender is in two parts:

(a) Part-I -Technical cum Un-priced commercial Bid

(b) Part-II-Price Bid

2.2.1 The tender shall be submitted online, duly completed as per NIT conditions within period of bid submission:

2.2.2 The tenderers are advised not to deviate from the technical specifications / item, commercial terms and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation etc.

2.2.3 Technical cum un-priced commercial bid only shall be opened on the due date and time in the presence of tenderers or their authorized representative who wish to remain present.

2.2.4 Scrutiny/evaluation of the technical-cum-commercial bid shall be done by the department. In case, it is found that the technical-cum-commercial bid of a tenderer is not in line with NIT specifications/requirements and/or contains too many deviations, the department reserves the right to reject the technical bid of such firms(s) without making any reference to the tenderer(s).

2.2.5 Necessary clarifications required by the department shall have to be furnished by the tenderer within the time given by the department for the same. The tenderer will have to depute his representative to discuss with the officer(s) of the department as and when so desired. In case, in the opinion of the department a tenderer is taking undue long time in furnishing the desired clarifications, his bid will be rejected without making any reference.

C.....Nil

I..... Nil

O..... Nil



- 2.2.6 After obtaining clarification from all the tenders, the department will intimate the tenderers whose technical cum commercial bids are acceptable.
- 2.2.7 The price bids of only those tenderers shall be opened whose technical bids are found to be technically acceptable. The time and date of opening of price bid shall be fixed after the technical cum un priced commercial bid is accepted and intimated to them by post/Fax/e-mail.
- 2.2.8 The department reserves the right to reject any or all the price bids and call for fresh prices/tenders as the case may be without assigning any reason.

3.0 Security Deposit

- 3.1 Security Deposit shall be deducted from each running bill and final bill to the extent of 5% of the gross amount payable. The security deposit shall be released on the expiry of guarantee period stipulated in the contract.

3.2 Performance Guarantee

The successful tenderer shall submit an irrevocable performance guarantee of 5% of the tendered amount in addition to other deposit mentioned elsewhere in the contract for his proper performance of the contract agreement within 15 days of issue of letter of acceptance of tender. This guarantee shall be in the form of Demand Draft/Pay order of irrevocable bank guarantee bond of any schedule bank or the State Bank of India in the specified perform a of Government Security, fixed deposit receipt pledged in favour of Registrar, IIT Delhi or as specified in the letter of acceptance of tender. The performance guarantee shall be initially valid up to the stipulated date of completion plus 60 days beyond. This bank guarantee shall be kept valid till the recording of completion certificate for the work by the competent authority.

- 3.3 Income tax, GST, Labour Cess & other statutory deduction etc. shall be made at source as per the prevalent laws. The deduction of Security Deposit, Income Tax, etc., shall be done after calculation for the above due payment as per clauses 3.1 to 3.3 and net payment shall reduce accordingly.

4.0 Rates

- 4.1 The rates quoted by the tenderer, shall be firm and inclusive of all taxes (including works GST & labour cess), duties, levies, etc. and all charges for packing forwarding, insurance, freight and delivery, installation, testing and commissioning etc. at site including temporary construction of storage, risks overhead charges, general liabilities/ obligations and clearance from CFO. However, the fee if any, for the CDO inspections shall be borne by the Department.

- 4.2 **The contractor has to carry out maintenance as per manufacturer's standards for a period of 12 months from the date of handing over. Nothing extra shall be paid on this account.**

5.0 Completeness of tender

All sundry equipments, fitting, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specially mentioned in the tender documents or not.

6.0 Storage and Custody of Material

C.....Nil

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O..... Nil



The agency has to make his own arrangement for storage. No separate storage accommodation shall be provided by the department. Watch and ward of the storage and their safe custody shall be responsibility till the final taking over of the installation by the department.

7.0 Care of the Building

Care shall be taken by the contractor while handling and installing the various equipment and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste material arising out of the installation from the site of work.

8.0 Completion Period

The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc, arrangement of materials & equipments, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.

9.0 Guarantee

9.1 All equipments shall be guaranteed for a period of 12 months from the date of taking over the installation by the department against unsatisfactory performance and/ or breakdown due to defective design, workmanship or material. The equipment or component, or any part thereof, so found defective during guarantee period shall be forthwith repaired or replaced free of cost to the satisfaction of the Engineer-in- Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of Engineer-in-Charge in this regard shall be final & binding on the contractor.

9.2 The tenderer shall guarantee among other things, the following:

- (a) Quality, strength and performance of the material used as per manufacturer's standards.
- (b) Safe mechanical and electrical stress on all part under all specified conditions of operation.
- (c) Satisfactory operation during the maintenance period.

10.0 Water supply / Power Supply

Water & power supply shall be made available by the department at one point in campus free of cost. Further, the arrangement for tapping power / water supply from this point shall be made by the contractor.

11.0 Acceptable makes of various equipments

The acceptable makes of various equipments / components / accessories have been indicated in "Acceptable Makes" indicated in the list attached. The tenderer shall work out the cost of the offer on this basis. Alternate makes are not acceptable.

12.0 Data Manual and Drawing to be furnished by the tenderer:

12.1 With tender: The tenderer shall furnish along with the tender, detailed technical literature, pamphlets and performance data for appraisal and evaluation of the offer.

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- 12.2** After award of work: The successful tenderer be required to submit the following drawings within 15 days of award of work of approval before commencement of installation.
- (a) General arrangement drawing of the equipments like Detectors, R.I., C&I Panel etc. in the building with complete dimensions.
 - (b) Any other drawing necessary for the job.
- 13.0** The successful tender should furnish well in advance three copies of detailed instruction and manuals of manufacturer's for all items of equipments regarding installation , adjustment operation and maintenance including preventative maintenance and troubleshooting together with all the relevant data sheets, spare parts catalogue etc. all in triplicate.
- 14.0 Extent of Work**
- 14.1** The work shall comprise of entire labour including supervision and all material necessary to make a complete installation and such tests and adjustment and commissioning as may be required by the department. The term complete installation shall not only mean major items of the plant and equipments covered by the specification but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not those have been mentioned in details in the tender documents in connection with this contract as this is a turnkey job.
- 14.2** In addition to supply, installation, testing and commissioning of Wet Riser System, following works shall be deemed to be included with the scope of work to be executed by the tenderer as this is a turnkey job-
- (a) Minor building works necessary for installation of equipments, foundation making of opening in walls or in floors and restoring them to their original condition I finish and necessary grouting etc. as required.
 - (b) All supports for cable and MS Channel for erection as are necessary.
 - (c) Getting CFO inspection done and obtaining clearance. However, necessary fees for inspection shall be borne by the department.
- 15.0** Exclusion and work to be done by other agencies:
- The following shall be excluded from the scope of work:
- (a) Major dismantling of any existing building work.
- 16.0** Copies of all documents of routine and type test certificates of the equipment carried out at the manufactures premises shall be furnished to the Engineer-in- charge and consignee.
- 17.0 VALIDITY**
- Tenders shall be valid for acceptance for a period of **ninety days** from the date of opening.
- 18.0 COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS:**
- 18.1** All works shall be carried out in accordance with relevant regulation both statutory and those specified by the Indian Standards related to the works covered by this specification in particular, the equipment and installation will comply with the following:

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- (i) Factories Act.
- (ii) Indian Electricity Rules
- (iii) B.I.S. & other standards as applicable
- (iv) Workmen's compensation Act.
- (v) Statutory norms prescribed by local bodies like fire department, CEA, Power Supply Co. etc.

18.2 After completion of the installation the same shall be offered for inspection by the representatives of the C.F.O, if advised by the Engineer-in-charge. The contractor will extend all help including test facilities to the representatives of CFO. The observation of CFO will be attended by the contractor.

18.3 Nothing in this specification shall be construed to relieve the successful tender of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

18.4 Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirements would make the tenderer liable for penalty of Rs.500/- for each default. In addition, the department will be at liberty to make arrangement for safety requirements at the cost of tenderer and recover the cost thereof from him.

19.0 INDEMNITY

The successful tenderer shall at all times indemnify the department, consequent on this works contract. The successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there from during the period of erection, construction and putting into operation the equipments and ancillary equipment under the supervision of the successful tenderer in so far as the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

20.0 Erection Tools:

No tools and tackles either for unloading or for shifting the equipments for erection purposes would be made available by the department .The successful tender shall make his arrangement for all these facilities

21.0 Cooperation with Other Agencies:

The successful tenderer shall co-ordinate with other contactors and agencies engages in the construction of building if any, and exchange freely all technical information so as to make the execution of this work / contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantles and re-dune for want or cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of work was not under taken by the tenderer himself.

22.0 Mobilization Advance:

No mobilization advance shall be paid for this work.

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**23.0 Insurance and Storage:**

It is advisable that all consignments should be duly insured upto the destination from warehouse at the cost of the contractor. The insurance covers shall be valid till the equipment is handed over duly installed, tested and commissioned.

24.0 Verification of Correctness of equipments at destination:

The contractor shall have to produce all the relevant records to certify that the genuine equipments from the manufacturers has been supplied and erected.

25.0 Painting

This shall include cost of painting of the entire installation. The major equipments like C&I Panel, cable trays etc. shall be factory final finish painted. The agency shall be required to do only touching to the damages caused to the painting during transportation, handling & installation at site, if there is no major damage to the painting. However hangers, supports etc. of cable tray etc. shall be painted with required shade including painting with two coats of anti-corrosive primer paint at site.

26.0 Training:

The scope of work includes the on job technical training of two persons of department at site. Nothing extra shall be payable on this account.

27.0 Maintenance:

27.1 Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of one year from the handing over of the installation.

27.2 The maintenance, routine as well as preventative for one year from the date of taking over the installation as per manufactures recommendation shall be carried out.

28.0 Interpreting Specification:

In interpreting the specification, the following order of decreasing importance shall be followed in case of contradictions:

- (a) Schedule of quantities
- (b) Technical Specification
- (c) Drawing (if any)
- (d) General Specification
- (e) Relevant BIS or other international code in case BIS code is not available.

**ANNEXURE - 1****<< Organization Letter Head >>****DECLARATION**

I / We, _____ hereby declare that all the information and data furnished by our organization with regard to this tender specification are true and complete to the best of our knowledge. I / we have gone through the specification, conditions and stipulations in details and agree to comply with the requirements and intent of specification.

1	Name & Address of the bidder	:	
2	Phone	:	
3	E-mail	:	
4	Contact person name	:	
5	Mobile number	:	
6	GSTIN number	:	
7	PAN number	:	
8	UTR no. [for payment of EMD]	:	
	BANK DETAILS		
9	Bank name	:	
10	Branch address	:	
11	Branch telephone no.	:	
12	MICR Code of the bank	:	
13	IFSC code	:	
14	Bank Account no.	:	
15	Type of account	:	
16	Blank Cheque	:	To be enclosed

We further declare that our organization has not been blacklisted / delisted or put to any holiday by any Institutional agency / Govt. Department / Public Sector Undertaking in the last three years.

[Signature of the bidder]

Name:

Seal of the bidder

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.

**ANNEXURE - 2****SCHEDULE OF TECHNICAL PARTICULARS****[to be filled by the bidder and submitted with Technical Bid]**

		MAIN FIRE PUMP	RESSURISATION PUMP	TERRACE PUMP
1	PUMP			
[i]	Make			
[ii]	Model no			
[iii]	Discharge			
[iv]	Total head at full discharge			
[v]	BHP absorbed at rated head			
[vi]	Speed			
[vii]	Casing material			
[viii]	Impeller material			
[ix]	Shaft material			
[x]	No. of stages			
[xi]	Type of drive			
[xii]	Type of sealing			
	N.B. – attach catalogue / curve			
2	MOTOR			
[i]	Make			
[ii]	Type			
[iii]	HP			
[iv]	Speed			
[v]	Insulation class			
3	DIESEL ENGINE			
[i]	Make			
[ii]	Model no.			
[iii]	H.P.			
[iv]	Speed			
[v]	No. of cylinders			
[vi]	I.S. / B.S. conforming to			
[vii]	Type of cooling			
[viii]	Fuel consumption at full load			

C.....Nil

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O..... Nil

**IITD - 2010 CORRECTION SLIPS**

In General condition of contract for IIT Delhi works department 2010 –

Reference	Existing	Modified
Clause 10B (ii), Para-2	Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount of advance & valid for the contract period. This shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery, together with interest.	Before any installment of advance is released, the contractor shall execute a Bank Guarantee Bond from Scheduled Bank for the amount equal to 110% of the amount of advance and valid for the contract period. This (Bank Guarantee from Scheduled Bank for the amount equal to 110% of the balance amount of advance) shall be kept renewed from time to time to cover the balance amount and likely period of complete recovery.
Clause 3 (vii)	If the contractor shall obtain a contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering.	If the contractor had secured the contract with Government as a result of wrong tendering or other non-bonafide methods of competitive tendering or commits breach of Integrity Agreement.

Reference	Existing Provision	Modified Provision
Page 5, IITD 2010	Page 5, IITD 2010 4A. Applicable for Percentage Rate Tender only (IITD-7) In case of Percentage Rate Tenders, a tenderer 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. 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.	Page 5, IITD 2010 4A. Applicable for Percentage Rate Tender only (IITD-7) In case of Percentage 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

C.....Nil

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		<p>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.</p> <p>New Para 4B is added as below:</p> <p>4B: 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.</p> <p>In case any of such contractor 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.</p> <p>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.</p> <p>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.</p> <p>Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process of the work.</p>
Reference	Existing Provision	Modified Provision
10A (page 6-7)	In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be	In case of Percentage Rate Tenders only percentage quoted shall be considered. Any tender containing item rates is liable to be

C.....Nil

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	<p>rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. However if the contractor has worked out the amount of the tender and if any discrepancy is found in the percentage quoted in words and figures, the percentage which corresponds with the amount worked out by the contractor shall, unless otherwise proved, be taken as correct. If the amount of the tender is not worked out by the contractor or it does not correspond with the percentage written either in figures or in words, then the percentage quoted by the contractor in words shall be taken as correct. Where the percentage quoted by the contractor in figures and in words tally but the amount is not worked out correctly, the percentage quoted by the contractor will, unless otherwise proved, be taken as correct and not the amount.</p>	<p>rejected. Percentage quoted by the contractor in percentage rate tender shall be accurately filled in figures and words, so that there is no discrepancy. (Remaining part deleted)</p>
<p>Reference</p>	<p>Existing Provisions</p>	<p>Modified Provisions</p>
<p>Deviations/ Variations Extent and Pricing</p>	<p><u>CLAUSE 12</u> The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main works except as hereafter provided.</p>	<p><u>CLAUSE 12</u> The Engineer-in-Charge shall have power (i) to make alteration in, omissions from, additions to, or substitutions for the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the site or for any other reasons and the contractor shall be bound to carry out the works in accordance with any instructions given to him writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitutions shall form part of the contract as if originally provided therein and any altered, additional or substituted work which the contractor may be directed to do in the manner specified above as part of the works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main works except as hereafter provided.</p>

C.....Nil

I..... Nil

O..... Nil



		The completion cost of any agreement for Maintenance works including works of upgradation, aesthetic, special repair, addition/ alteration shall not exceed 1.25 times of Tendered amount.
Deviations, Extra Items, Pricing	<p>12.2</p> <p>In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 90 days of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined.</p>	<p>12.2</p> <p>A. For Project and original works:</p> <p>In the case of extra items (items that are completely new and are in addition to the items contained in the contract), the contractor may within 90 days of receipt of order or occurrence of the item(s) claim rate, supported by proper analysis, for the work and the Engineer-in-charge shall within one month of the receipt of the claims supported by analysis after giving considerations to the analysis of the rates submitted by the contractor, determined the rates on basis of market rates and the contractor shall be paid in accordance with the rates so determined.</p> <p>B. For Maintenance including works of up gradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of Extra Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plush cost index (at the time of tender) plus/minus percentage above below quoted contract amount.</p> <p>Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.</p>
Deviation, Substituted Items, Pricing	<p>In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para.</p>	<p>A. For Project and original works:</p> <p>In the case of substituted items (items that are taken up with partial substitution or lieu of items of work in the contract), the rate for the agreement item (to be substituted) and substituted item shall also be determined in the manner as mentioned in the following Para.</p>

C.....Nil

I..... Nil

O..... Nil



	<p>(a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).</p> <p>(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted)</p>	<p>(a) If The market rate for the substituted item so determined is more than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted).</p> <p>(b) If the market rate for the substituted item so determined is less than the market rate of the agreement item (to be substituted), the rate payable to the contractor for the substituted item shall be the rate for the agreement item (to be substituted) so decreased to the extent of the difference between the market rates of substituted item and the agreement item (to be substituted). For Maintenance including works of upgradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of Substitute Item(s) being the schedule items (Delhi Schedule of Rates items), these shall be paid as per the schedule rate plus cost index (at the time of tender) plus/minus percentage above below quoted contract amount.</p> <p>Payment of Extra items in case of non-schedule items (Non-DSR items) shall be made as per the prevailing market rate.</p>
<p>Deviation, Deviated Quantities, Pricing</p>	<p>In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the rates so determined.</p>	<p>A. For Project and original works:</p> <p>In the case of contract items, substituted items, contract cum substituted items, which exceed the limits laid down in schedule F, the contractor may within fifteen days of receipt of order or occurrence of the excess, claim revision of the rates, supported by proper analysis for the work in excess of the above mentioned limits, provided that if the rates so claimed are in excess of the rates specified in the schedule of quantities, the Engineer-in-Charge shall within one month of receipt of the claims supported by analysis, after giving consideration to the analysis of the rates submitted by the contractor, determine the rates on the basis of the market rates and the contractor shall be paid in accordance with the</p>

C.....Nil

I..... Nil

O..... Nil



		<p>rates so determined.</p> <p>B. For Maintenance including works of up-gradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of contract items, which exceed the limit laid down in schedule F, the contractor shall be paid rates specified in the schedule of quantities.</p>
	<p>12.3 The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p>	<p>12.3 A. For Project and original works:</p> <p>The provisions of the preceding paragraph shall also apply to the decrease in the rates of items for the work excess of the limits laid down in Schedule F, and the Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p> <p>B. For Maintenance including works of up-gradation, aesthetic, special repair, addition/ alteration:</p> <p>In the case of decrease in the rates Prevailing in the market of items for the the work excess of the limits laid down in Schedule F, and the</p> <p>Engineer-in-Charge shall after giving notice to the contractor within one month of occurrence of the excess and after taking into consideration any reply received from him within fifteen days of the receipt of the notice, revise the rates for the work in question within one month of the expiry of the said period of fifteen days having regard to the market rates.</p>
Schedule F	<p>Clause 12</p> <p>No provision.</p>	<p>Clause 12</p> <p>Type of work ___ *** _____</p> <p>*** To be filled by NIT approving authority</p>

C.....Nil

I..... Nil

O..... Nil



		either Project and original work or Maintenance works including works of up-gradation, aesthetic, special repair, addition/alteration.
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C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.

**LIST OF RELEVANT INDIAN STANDARDS**

Sr. No.	IS No.	Title
1	IS : 8757	Glossary of terms associated with fire safety
2	IS : 884	Specification for first-aid hose reel for fire fighting
3	IS : 901	Specification for couplings, double male and double female instantaneous pattern for fire fighting
4	IS : 902	Specification for suction hose couplings for fire fighting purpose
5	IS : 903	Specification for fire hose delivery couplings, branch pipe, nozzles and nozzle spanner
6	IS : 904	Specification for two way and three way suction collecting heads for fire fighting purposes
7	IS : 907	Specification for suction strainers, cylindrical type for fire fighting purpose
8	IS : 908	Specification for fire hydrant, stand post type
9	IS : 909	Specification for underground fire hydrant
10	IS : 636	Non percolating flexible fire fighting delivery hose
11	IS : 7637	Glossary of terms for fire fighting equipment
12	IS : 937	Specification for washers for water fittings for fire fighting purposes
13	IS : 1641	Code of practice for fire safety of buildings [general]: General principles for fire grading and classification
14	IS : 1642	Code of practice for fire safety of buildings [general]: Details of construction
15	IS : 1643	Code of practice for fire safety of buildings [general]: Exposure hazard
16	IS : 1644	Code of practice for fire safety of buildings [general]: Exit requirements and personal hazard
17	IS : 1646	Code of practice for fire safety of buildings [general]: Electrical Installation
18	IS : 2871	Specification for branch pipe, universal for fire fighting purposes
19	IS : 2930	Functional requirements for hose laying tender for fire brigade use
20	IS : 5290	Specification for landing valves
21	IS : 8090	Specification for couplings, branch pipe, nozzle, used in hose reel tubing for fire fighting
22	IS : 8442	Specification for stand post type water monitor for fire fighting
23	IS : 9972	Specification for automatic sprinkler head
24	IS : 11101	Specification for extended branch pipe for fire brigade use
25	IS : 12349	Fire protection-safety sign
26	IS : 12407	Graphic symbols for fire protection plan
27	IS : 9668	Code of practice for provision and maintenance of water supplies and fire fighting
28	IS : 3844	Code of practice for installation and maintenance of internal fire hydrants and hose reel on premises
29	IS : 12585	Specification for thermoplastic house [Textile Reinforced] for water genset purpose
30	IS : 10221	Code of practice for coating and wrapping of underground mild steel pipe lines
31	IS : 15105	Design and installation of fixed automatic sprinkler fire extinguisher

C.....Nil

I..... Nil

O..... Nil



		system – code of practice
32	IS : 325	Three phase induction motors
33	IS : 1822	Motor starter for voltage not exceeding 1000 volts
34	IS : 3624	Bourdon tube pressure and vacuum gauges
35	IS : 1520	Horizontal centrifugal pumps for clear, cold, fresh water
36	IS : 1239	Mild steel tubes, tubulars and other wrought steel fittings
37	IS : 3589	Electrically welded steel pipes for water, gas & sewage
38	IS : 6392	Steel pipe flanges
39	IS : 778	Gun metal gate, globe and check valves for general purpose
40	IS : 2592	Recommendations for methods of measurements or fluid flow be means of orifice plates and nozzles
41	IS : 732	Code of practice for electrical wiring and fittings of building
42	IS : 900	Code of practice for installation and maintenance of induction motor
43	IS : 1248	Direct acting electrical indicating instruments
44	IS : 2516	a.c. circuit breakers for voltage not exceeding 1000 volts
45	IS : 4047	Heavy duty air-break switches and composite units of air break switches and fuses for voltages not exceeding 1000 volts
46	IS : 2208	HRC cartridge fuse links upto 650 volts
47	IS : 1554 [Part – I]	PVC insulated [heavy duty] electric cables for working voltage upto and including 1100 volts
48	IS : 1536	Centrifugally cast iron pipe
49	IS : 1537	Vertically cast iron pipe
50	IS : 1538	Cast iron pipe fittings
51	IS : 780	Sluice valve for water works purposes [50 to 300 mm size]
52	IS : 13095	Butterfly valves

**ACCEPTABLE MAKES**

Sr. No.	Item	Acceptable make
1	PUMP	Mather & Platt (Willo), Kirloskar, Beacon, Grundfos, ITT, Batliboi, KSB, BE, Jyothi, WASP
2	MOTOR	ABB, KEC, CGL, Bharat Bijlee, Grundfos, GE, Siemens, NGEF
3	DIESEL ENGINE	Cummins, Greaves, KOEL, Escorts, Cater Pillar, Ashok Leyland
4	M.S. / G.I. PIPE	Prakash Surya , TT Swastik , Jindal (Hisar), Tata
5	SLUICE VALVE	Audco , Advance , Zoloto , Kirloskar , Intervolve, Leader, Cim
6	GUN METAL VALVE	Audco , Advance , Zoloto , Kirloskar , Intervolve, Leader, Cim
7	BUTTERFLY VALVE	Audco , Advance , Zoloto , Kirloskar , Intervolve, Leader, Cim
8	WATER SOLENOID VALVE	Audco , Advance , Zoloto , Kirloskar , Intervolve, Leader, Cim
9	CUSHY FOOT MOUNTINGS	Dunlop /Poly Bond
10	PRESSURE SWITCH	Fiebig/H-GURU/Pricol
11	PRESSURE GAUGES	Fiebig/H-GURU/Pricol
12	WATER LEVEL CONTROLLER	Fiebig/H-GURU/Pricol
13	BATTERIES	Exide / Furukawa / AMCO / Prestolite /Amara Raja / Crompton Greaves / Hitachi
14	FLOW SWITCH	Honeywell / Rapid Control
15	INTERNAL / EXTERNAL HYDRANT [LANDING VALVE]	Newage, Ceasefire, Vijay, Minimax, Eversafe, Peter autokit , Padmini
16	POWER CABLES	Gloster ,CCI, Finolex, Havells, RR Kabel, NICCO, Polycab
17	CONTROL CABLES	Gloster ,CCI, Finolex, Havells, RR Kabel, NICCO, Polycab
18	SINGLE PHASE PREVENTER	L&T/Minitac/Zerotrip/Siemens
19	SDFU / SFU WITH HRC FUSES	GE, ABB, Siemens, L&T, HPL, C&S, BCH, Schneider, Indoasian, Havell's
20	STARTERS / CONTACTORS	L&T/Siemens/BCH/ABB/MEI/GE Power Control
21	ELECTRICAL PANEL / SYSTEM CONTROLLER & CONTROL CONSOLE	Meco, Rishab, L&T, AE, Milborn, Tricolite, Milestone, Neptune

MATERIAL APPROVAL

The material brought at site, not included in the list above, shall be approved by the Engineer-in-charge before use in the work. In case during execution any material being used in the work is found not as per agreement specifications. Engineer-in-charge may issue instruction to the contractor to remove the material from site and the contractor will be bound to do so.

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.

**ONLINE BID SUBMISSION:**

The Online bids (complete in all respects) must be uploaded online in **two** Envelopes as explained below:-

Envelope – 1 (Following documents to be provided as single PDF file)			
Sl. No.	Documents	Content	File Types
1.	Technical Bid	Annexure 1 & 2 [duly filled in preferably typed]	.PDF
2.		Attested Certificate of work experience as desired	.PDF
3.		Certificate of registration for GSTIN	.PDF
4.		Affidavit as per NIT condition 1.2.2 on stamp paper	.PDF
5.		Valid Electrical Licence	.PDF
6.		Acceptance to execute integrity pact	.PDF
7.		IITD 7/8 duly signed by the bidder	.PDF
8.		EPFO & ESIC Registration proof with challan	
9.		Any other document as specified in the NIT	.PDF
Envelope – 2			
Sl. No.	TYPES	Content	
1.	Financial Bid	Price bid should be submitted in BOQ format.	. BOQ

C.....Nil

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**SCHEDULE OF QUANTITY**

Name of Work: - Supplying, Installation, Testing & Commissioning of Fire Fighting Pumps and Allied Works at Jhanskar Hostel, IIT Delhi.

Sr. No.	Description of work	Qty	Rate	Unit	Amount
1	Supplying, installation, testing & commissioning of electric driven main fire pump suitable for automatic operation and consisting of following: complete in all respect as required.				
	[a] Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq.cm at highest and farthest outlet at specified flow of 1620 LPM at 56 m head conforming to IS1520.				
	[b] Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase, 50 Hz a.c. with IP 55 protection for enclosure, horizontal foot mounted type with class - F insulation, conforming to IS-325.				
	[c] M.S. fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required.				
	[d] Suitable cement concrete foundation duly plastered with anti vibration pads.	1 set		Set	
2	Supplying, installation, testing and commissioning of diesel engine driven main pump suitable for automatic operation and consisting of following complete in all respect as required.				
	[a] Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sqcm at highest and farthest outlet at specified flow of 1620 LPM at 56 m head conforming to IS 1520.				

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	[b] Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to BS & IS standard complete with auto mechanism, 12/24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 1.0 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protections as per specifications, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.			
	[c] MS fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required.			
	[d] Suitable cement concrete foundation duly plastered with anti vibration pads.	1 set		Set
3	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following complete in all respect as required.			
	[a] Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal and flow of 200 LPM at 56 m head conforming to IS: 1520.			
	[b] Suitable HP SQ cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase, 50 Hz a.c. with IP 55 protection for enclosure, horizontal foot mounted type with class - F insulation, conforming to IS-325.			
	[c] MS fabricated common base plate, coupling, coupling guard, foundation bolts etc. as required.			
	[d] Suitable cement concrete foundation duly plastered with anti vibration pads.	1 set		Set



4	Fabrication, supplying, installation, testing & commissioning of electrical control panel of cubicle construction, floor mounted type, fabricated out of 2 mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley of width lot less than 300 mm , interconnection, having switchgears and accessories mounting and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for operation on 415 V, 3 Phase, 50 Hz a.c supply with enclosure protection class IP 42 as required. [drawing of panel shall be got approved by the Engineer-in-charge before supplying at site]			
	COMMOM PANEL IN FIRE PUMP HOUSE			
	[I] INCOMER			
	[a] 400 amp TP&N SFU with HRC fuses			
	[b] Voltmeter [0 - 500 volts] with selector switch			
	[c] Ammeter [0 - 500 amps] with selector switch & CTs etc.			
	[d] Set of 3 phase indicating lamps			
	[e] Set of aluminium busbar of 500 amps . Capacity [not less than 75 mm x 6 mm]			
	[II] OUTGOING:			
	N.B.: Electrical through advance contacts in MCCB / ACB's [incomers and bus couplers] and mechanical [castel key] interlocking should be provided to ensure that only one supply is available at a time on each section of bus and to eliminate any possibility of accidentally approaching two supplies at one bus section.			
	[A] DIESEL ENGINE CONTROL			
	Control for Diesel Engine comprising:			
	[i] Auto / Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start / loop in manual mode.			
	[ii] Indication lamp for High / Low Lub. Oil pressure, high water temperature and Engine ON indication			
	[iii] Battery charger suitable for 12 V / 24 V d.c. with boost and trickle selector switch, 0 - 30 volt d.c. meter, 0 - 20 A d.c. ammeter			

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[iv] All standard relays and accessories for automatic operation of diesel engine
[B] PRESSURISATION [Jockey] PUMP CONTROL
[a] 125 amp TP&N SFU with HRC fuses
[b] Voltmeter [0 - 500 volts] with selector switch
[c] Ammeter [0 - 200 amps] with selector switch & CTs etc.
[d] Set of 3 phase indicating lamps
[e] Suitable HP fully automatic Star / Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation.
[f] Selector switch for local / remote, auto / manual / off operation ON / OFF indication lamp etc.
[C] MAIN FIRE PUMP CONTROL
[a] 250 amp TP&N SFU with HRC fuses
[b] Voltmeter [0 - 500 volts] with selector switch
[c] Ammeter [0 - 300 amps] with selector switch & CTs etc.
[d] Set of 3 phase indicating lamps
[e] Suitable HP fully automatic Star / Delta starter with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation.
[f] Selector switch for local / remote, auto / manual / off operation ON / OFF indication lamp etc.
[D] SUBMERSIBLE PUMP CONTROL
[a] 2 + 8 Way DIN bar on the panel comprising 40 A DP MCB and 8 x 6 to 32 A 'C' Series SP/DP MCBs in separate compartment.
[b] DOL starter of suitable rating with OLR and automatic operation of pump connected with level sensor in the priming tank
[c] Ammeter and Voltmeter of suitable range and indicating lamps
[d] Selector switch for local / remote, auto / manual / off operation ON / OFF indication lamp etc.
[E] SYSTEM CONTROLLER

C.....Nil

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	Design, supplying and installation, testing and commissioning of system controller to control operation of Main Electric Fire Pump, Pressurisation Pump, Diesel Pump in sequence as per specification consisting of relays, timers, sensors, annunciation window for fault indication, complete as per specification.	1 set		Set	
5	Supplying and laying of XLPE / PVC insulated stranded copper conductor 1.1 KV grade [un-armoured] of following size on existing cable tray suitably clamped with termination with copper lugs at both ends as required.				
	[a] 3 core 70 sqmm	25 m		Metre	
	[b] 3 core 16 sqmm	30 m		Metre	
	[c] 3 core 10 sqmm	50 m		Metre	
6	Supplying and laying of XLPE insulated PVC sheathed alluminium conductor 1.1 KV grade armoured U.G. cable of following sizes on surface / in existing cable tray suitably clamped as required.				
	[a] 3.5 x 300 sqmm	350 m		Metre	
	[b] 4 x 25 sqmm	50 m		Metre	
	[c] 2 x 6 sqmm	25 m		Metre	
7	Supplying and laying control wiring with multicore copper stranded conductor of following sizes PVC insulated, PVC sheathed armoured under ground cable between various sensors and system controller / starter etc. in pump house & outside on surface / existing cable tray complete with connections at both end with gland etc. as required.				
	[a] 8 x 2.5 sqmm	30 m		Metre	
	[b] 6 x 2.5 sqmm	40 m		Metre	
	[c] 4 x 2.5 sqmm	40 m		Metre	
	[d] 2 x 2.5 sqmm	50 m		Metre	
8	Supplying and making end termination with brass compression gland & Al. lugs for following sizes of PVC insulaed, PVC sheathed / XLPE Al. conductor cables of 1.1 KV grade as required.				
	[a] 3.5 x 300 sqmm	4 set		Set	
	[b] 4 x 25 sqmm	6 set		Set	
	[c] 2 x 6 sqmm	10 set		Set	



9	Supplying, installation and testing of earthing station with GI plate of size 600 mm x 600 mm x 6 mm including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe including charcoal / coke and salt complete as per specification.	2 set		Set	
10	Providing and fixing 25 mm x 5 mm GI strip in 40 mm dia GI pipe from earth electrode including connections with GI nut, bolt, spring washers, excavation and refilling etc. as required.	20 m		Metre	
11	Providing and fixing 25 mm x 5 mm GI strip on surface or in recess for earth connections as per specifications complete as required.	20 m		Metre	
12	Providing and fixing 4 mm dia copper wire on surface or in recess for loop earthing alongwith existing surface / recessed conduit / submain wiring / cable etc as per specification as required.	50 m		Metre	
13	Providing and fixing 6 SWG dia GI wire on surface or in recess for loop earthing complete as required.	700 m		Metre	
14	Fabrication and installation of following sizes of perforated MS cable tray including horizontal and vertical bends, reducers, tees, cross members and other accessories as required duly suspended from the ceiling with MS suspenders and including painting with post office red synthetic paint as required.				
	[a] 100 mm [W] x 50 mm [D] x 1.6 mm [T]	50 m		Metre	
	[b] 150 mm [W] x 50 mm [D] x 1.6 mm [T]	50 m		Metre	
15	Providing, laying, testing and commissioning of 'C' class heavy duty MS pipe conforming to IS 3589 and 1239 including fittings like elbows, tees, flanges, tapers, nut bolts, gaskets etc. fixing the pipe on the wall / ceiling with suitable clamps and painting with two or more coats of synthetic enamel paint of required shade complete as required.				
	[a] 200 mm dia [wall thickness 6 mm]	20 m		Metre	
	[b] 150 mm dia	60 m		Metre	
	[c] 100 mm dia	10 m		Metre	
	[d] 80 mm dia	10 m		Metre	
	[e] 65 mm dia	10 m		Metre	
	[f] 50 mm dia	10 m		Metre	

C.....Nil

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16	Supplying, fixing, testing and commissioning of butterfly valve PN 1.6 with bronze / gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets, conforming to IS 13095 of following sizes as required.				
	[a] 150 mm dia	2 nos.		Each	
	[b] 100 mm dia	2 nos.		Each	
	[c] 80 mm dia	1 nos.		Each	
	[d] 50 mm dia	3 nos.		Each	
17	Supplying and fixing orifice plate made of 6 mm thick stainless steel with orifice of required size in between flange and landing valve of external and internal hydrant to reduce pressure to working pressure of 3.5 kg/cm ² complete as per specifications as required.	1 nos.		Each	
18	Providing, installation, testing and commissioning of dual plate non-return valve of following sizes conforming to IS 5312 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
	[a] 150 mm dia	3 nos.		Each	
	[b] 80 mm dia	2 nos.		Each	
	[c] 50 mm dia	3 nos.		Each	
19	Providing, installation, testing and commissioning of dual plate Foot valve of following sizes conforming to IS 4038 complete with rubber gasket, GI bolts, nuts, washers etc. as required.				
	[a] 150 mm dia	2 nos.		Each	
	[b] 80 mm dia	1 nos.		Each	
20	Supplying and fixing 4 way fire brigade connection of cast iron body with 4 nos. gun metal male instantaneous inlet couplings complete with cap and chain as reqd for 150 mm dia MS pipe connection, conforming to IS 904 as required.	1 nos.		Each	
21	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gunmetal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade as required.	1 nos.		Each	
22	Providing and fixing pressure switch in the MS pipe line including connection etc. as required.	1 nos.		Each	

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23	Providing and fixing flow switches in 100 / 150 mm dia MS pipe	1 nos.	Each	
24	Providing and fixing pressure transducer in MS pipe line [pressure range 0 - 10 kg/cm ²] suitable for 12 volts / 24 volts d.c. including connections etc. as required.	1 nos.	Each	
25	Providing priming arrangement by supplying and installation of 1000 litre capacity PVC water tank on overhead platform including connection of inlet and outlet pipes etc. complete as required.	1 no.	Each	
26	Design, fabrication, supplying and installing of fire pump room of size 6 m [W] x 8 m [L] x 3.5 m [H] made of square shaped iron, angle iron, GI pipe, GI shed, GI sheet, GI net with adequate ventilation, lockable door etc. including excavation, baseplate, foundation, anticorrosive painting, etc. comprising following materials complete as required. [design of room shall be got approved by the Engineer-in-charge before starting fabrication]			
	[a] square shaped MS Hollow Section [70 x 70 x 6.3 mm SHS]			
	[b] 50 x 50 x 5 mm MS angle			
	[c] 40 mm G.I. pipe			
	[d] 18 SWG G.I. sheet			
	[e] G.I. net made of 8 SWG G.I. wire	1 Job	Job	
27	Providing and laying in position cement concrete 1:3:6 [1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size] in foundation of pump, DG set floor etc. including form work etc. as required.	12 cum	CUM	
28	Supplying, installation, testing and commissioning of 0.75 HP submersible pump in horizontal position suitable for use on 230 volt, 50 Hz a.c. supply including making connection of pipes, electrical cables, base foundation etc. as required.	1 no.	Each	
29	Excavation for foundation in soft soil including dressing of sides and ramming of bottoms, lift upto 1.5 m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 metre.	20 cum	CUM	

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30	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FR PVC insulated copper conductor single core cable in surface / recessed steel conduit, with piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq.mm. FR PVC insulated copper conductor single core cable etc as required.				
	Group C	8 point		Point	
31	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required				
	2 X 4 sq. mm + 1 X 4 sq. mm earth wire	30 m		Metre	
32	Supplying and fixing metal box of 180mm X 100mm X 60mm deep (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in front including providing and fixing 6 pin 5/6 & 15/16 amps socket outlet and 15/16 amps piano type switch, connection, painting etc. as required.	2 nos.		Each	
33	Supplying, Installation, testing and commissioning of pre-wired LED type fluorescent fitting fitting of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FR PVC insulated, copper conductor, single core cable and earthing etc. as required.	6 nos.		Each	
34	Supplying and fixing of 40 Watt LED type compound / street light with arm bracket including making connections etc. as required.	2 nos.		Each	

Bidder shall not quote rates here under any circumstances.

EE [E]

A E.E. (E.)

Sr. F.I.

C.....Nil

I..... Nil

O..... Nil

D'Man /J.E.

A.E.E / Sr.F/I

E.E.