



Government eProcurement System		eProcurement System Government of India	
		Tender Details	
		Date : 08-Apr-2024 04:19 PM	
		 Print	
<b>Basic Details</b>			
<b>Organisation Chain</b>	Indian Institute of Technology Indore  Infrastructure Development Office - IITI		
<b>Tender Reference Number</b>	IITI/IDO/Maint/STP/2023-24		
<b>Tender ID</b>	2024_IITI_803342_1	<b>Withdrawal Allowed</b>	Yes
<b>Tender Type</b>	Open Tender	<b>Form of contract</b>	Item Rate
<b>Tender Category</b>	Works	<b>No. of Covers</b>	2
<b>General Technical Evaluation Allowed</b>	No	<b>ItemWise Technical Evaluation Allowed</b>	No
<b>Payment Mode</b>	Offline	<b>Is Multi Currency Allowed For BOQ</b>	No
<b>Is Multi Currency Allowed For Fee</b>	No	<b>Allow Two Stage Bidding</b>	No
<b>Payment Instruments</b>		<b>Cover Details, No. Of Covers - 2</b>	
<b>Offline</b>	<b>S.No</b>	<b>Instrument Type</b>	
	1	R-T-G-S	
	2	NEFT	
<b>Cover No</b>	<b>Cover</b>	<b>Document Type</b>	<b>Description</b>
1	Fee/PreQual/Technical	.pdf	Technical
2	Finance	.xls	Financial
<b>Tender Fee Details, [Total Fee in ₹ * - 0.00]</b>		<b>EMD Fee Details</b>	
<b>Tender Fee in ₹</b>	0.00	<b>EMD Amount in ₹</b>	71,000
<b>Fee Payable To</b>	Nil	<b>EMD Exemption Allowed</b>	No
<b>Fee Payable At</b>	Nil	<b>EMD Fee Type</b>	fixed
<b>Tender Fee Exemption Allowed</b>	No	<b>EMD Payable To</b>	REGISTRAR IIT INDORE
		<b>EMD Percentage</b>	NA
		<b>EMD Payable At</b>	IIT INDORE
<a href="#">Click to view modification history</a>			
<b>Work /Item(s)</b>			
<b>Title</b>	Annual Contract for Operation and Maintenance of 650 KLD capacities Sewerage Treatment Plant STP at IIT Indore		
<b>Work Description</b>	Annual Contract for Operation and Maintenance of 650 KLD capacities Sewerage Treatment Plant STP at IIT Indore		
<b>Pre Qualification Details</b>	Please refer Tender documents.		
<b>Independent External Monitor/Remarks</b>	NA		
<b>Tender Stage to disclose bid details to other bidders/public domain</b>	Yes		
<b>Tender Value in ₹</b>	35,50,000	<b>Product Category</b>	Civil Works - Water Works
		<b>Sub category</b>	NA
<b>Contract Type</b>	Tender	<b>Bid Validity(Days)</b>	90
		<b>Period Of Work(Days)</b>	365
<b>Location</b>	IIT Indore Simrol	<b>Pincode</b>	453552
		<b>Pre Bid Meeting Place</b>	NA

<b>Pre Bid Meeting Address</b>	NA	<b>Pre Bid Meeting Date</b>	NA	<b>Bid Opening Place</b>	IIT Indore
<b>Should Allow NDA Tender</b>	No	<b>Allow Preferential Bidder</b>	No		

**Critical Dates**

<b>Publish Date</b>	08-Apr-2024 05:00 PM	<b>Bid Opening Date</b>	25-Apr-2024 05:30 PM
<b>Document Download / Sale Start Date</b>	08-Apr-2024 05:00 PM	<b>Document Download / Sale End Date</b>	24-Apr-2024 05:00 PM
<b>Clarification Start Date</b>	NA	<b>Clarification End Date</b>	NA
<b>Bid Submission Start Date</b>	08-Apr-2024 05:00 PM	<b>Bid Submission End Date</b>	24-Apr-2024 05:00 PM

**Tender Documents**

NIT Document	S.No	Document Name	Description	Document Size (in KB)
		1	Tendernotice_1.pdf	Tender Document

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
		1	BOQ	BOQ_844413.xls	BOQ

**Bid Openers List**

S.No	Bid Opener Login Id	Bid Opener Name	Certificate Name
1.	rohit.khatri@iiti.ac.in	Rohit khatri	"ROHIT KHATRI"
2.	sherinjacob@iiti.ac.in	Sherin Jacob	SHERIN JACOB
3.	chainika@iiti.ac.in	Chainika Malhotra	CHAINIKA MALHOTRA
4.	ldave@iiti.ac.in	Lovelesh Dave	LOVELESH DAVE

**Tender Properties**

<b>Auto Tendering Process allowed</b>	No	<b>Show Technical bid status</b>	Yes
<b>Show Finance bid status</b>	Yes	<b>Show Bid Details in Public Domain stage</b>	Technical Bid Opening
<b>BoQ Comparative Chart model</b>	Normal	<b>BoQ Comparative chart decimal places</b>	2
<b>BoQ Comparative Chart Rank Type</b>	L	<b>Form Based BoQ</b>	No

**TIA Undertaking**

S.No	Undertaking to Order	Tender complying with Order	Reason for non compliance of Order
1	<a href="#">PPP-MII Order 2017</a>	Agree	
2	<a href="#">MSEs Order 2012</a>	Not Applicable	This is a Work Contract

**Tender Inviting Authority**

<b>Name</b>	Maintenance In Charge
<b>Address</b>	LG-12 Central Dining facility, IIT Indore , Khandwa Road, Simrol Indore-453552

**Tender Creator Details**

<b>Created By</b>	Rohit khatri
<b>Designation</b>	Deputy Manager
<b>Created Date</b>	08-Apr-2024 04:19 PM





**भारतीय प्रौद्योगिकी संस्थान इंदौर**  
*Indian Institute of Technology Indore*

*Infrastructure  
Development  
Office*

# **INDIAN INSTITUTE OF TECHNOLOGY INDORE**

SIMROL, KHANDWA ROAD, INDORE 453552

[www.iiti.ac.in](http://www.iiti.ac.in)



## **TENDER DOCUMENT**

**FOR**

Annual Contract for Operation & Maintenance of 650 KLD capacities  
Sewerage Treatment Plant (STP) at IIT Indore



**NIT No. - IITI/IDO/Maint./STP/2023-24**

**TENDER NOTICE**

<b>INDIAN INSTITUTE OF TECHNOLOGY INDORE</b>
<b>Notice Inviting Tender</b>
The Maintenance in Charge IIT Indore invites online Item rate tenders in two bid system on behalf of IIT Indore for following work(s):-
<b>NIT No.: IITI/IDO/Maint./STP./2023-24</b>
<b>Name of Work: Annual Contract for Operation &amp; Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore</b>
<b>Estimated Composite Cost: Rs. 35,50,000/-</b>
<b>Earnest Money Deposit: Rs. 71,000/-</b> to be submitted online through the link given below:  <b><a href="https://forms.eduqfix.com/indoreiit/add">https://forms.eduqfix.com/indoreiit/add</a></b>
<b>Note:</b> Without submission of EMD Payment receipt the bid will be summarily rejected as EMD exemption is not allowed for works contract
<b>Time of Completion: One Year (365 Days)</b>
<b>Date of availability of tender document for download from 08/04/2024 to 24/04/2024 (5:00 P.M.) can be seen on website <a href="http://iiti.ac.in/tenders/tender">http://iiti.ac.in/tenders/tender</a>, and downloaded free of cost and shall be submitted online on central public procurement portal (CPPP)</b>
<b>Last date of submission of bids up to 5.00 P.M. of 24/04/2024</b> <b>Time and date of opening of eligibility bid: 05.30 PM of 25/04/2024</b>



# INDIAN INSTITUTE OF TECHNOLOGY INDORE

SIMROL, KHANDWA ROAD, INDORE 453552

[www.iiti.ac.in](http://www.iiti.ac.in)

**TENDER FOR “Annual Contract for Operation & Maintenance of 650 KLD capacities  
Sewerage Treatment Plant (STP) at IIT Indore.”**

The Maintenance in Charge, IIT Indore on behalf of IIT Indore invites online Item rate tenders for “**Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore**” from reputed agencies.

**Name of Work : Annual Contract for Operation & Maintenance of 650 KLD capacities  
Sewerage Treatment Plant (STP) at IIT Indore.”**

**Estimated Cost : Rs. 35,50,000/-**

**Earnest Money : Rs. 71,000/-**



**Table of Contents of documents.**

Tender documents consist of:

<b>Sr.No.</b>	<b>Description</b>	<b>Page no.</b>
1.	Notice inviting Tender	1-3
2.	Table of Contents.	04
3.	Instruction For Online Bid Submission	05
4.	General Instruction to Tenderer.	09
5.	Articles of Agreement	18
6.	Form of Contract	21
7.	Statement I to VII	24
8.	General Conditions of Contract.	27
9.	Special Condition of Contract.	29
10.	Proforma of Schedules	55
11.	Scope of Work	61
12.	Check List to Accompany the Tender	69
13.	Price Bid	59

The Tenderer shall be deemed to have examined all instructions, forms, terms, and specifications in the Documents. Failure to furnish the information required by the Tender Document or submission of a Tender not substantially responsive to the Tender Documents in every respect will be at the Tenderer's risk and may result in the rejection of the Tender.

The several documents forming the contract are to be taken as mutually explanatory of one another, and Special Conditions are in preference to General Conditions.



### **Instructions for Online Bid Submission**

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 submit their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtain at: <https://eprocure.gov.in/eprocure/app>.

#### **REGISTRATION**

- 1) Bidders are required to enroll on the E-Tender module of the Central Public Procurement Portal ([URL:https://eprocure.gov.in/eprocure/app](https://eprocure.gov.in/eprocure/app)) by clicking on the link “Online bidder Enrollment” on the CPP Portal which 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 III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify /n Code /e Mudhra 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 DSC"s to others which may lead to misuse.
- 6) Bidder then logs in to the site through the secured log-in by entering their user ID/password and the password of the DSC/e-Token.





### SEARCHING FOR TENDER DOCUMENTS

- 1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other key words etc. to search for a tender published on the CPP Portal.
- 2) Once the bidders have selected the tenders they are interested in, they may download the required documents/tender schedules. These tenders can be moved to the respective,, My Tenders "folder. This would enable the CPP Portal to intimate the bidders through SMS/email in case there is any corrigendum issued to the tender document.
- 3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification/help from the Help desk.

### PREPARATION OF BIDS

- 1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
- 2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in 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 tender document/schedule and generally, they can be in PDF/XLS/RAR/DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.
- 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" or,, "Other Important Documents"" are available to them to upload such documents. These documents may be directly submitted from the "My Space" are a 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.

Note: My Documents space is only a repository given to the Bidders to ease the uploading process. If Bidder has uploaded his Documents in My Documents space, this does not automatically ensure these Documents being part of Technical Bid.

### SUBMISSION OF BIDS

- 1) Bidder should login to the site well in advance for bid submission so that they can 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 tender document.
- 3) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white colored (unprotected) cells with their respective financial quote 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 file name. If the BoQ file is found to be modified by the bidder, the bid will be rejected. **The vendor/firm should fill the complete details as mentioned in BOQ and exclusion of any cell of BOQ (Financial bid), the cost will be treated as inclusive of GST and other charges as mentioned in the BOQ column.**
- 4) 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. 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 these cured Socket Layer 128 bit encryption technology. Data storage encryption of sensitive fields is done. Any bid



document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to a symmetric encryption using buyers/bid opener"s public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

- 5) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.
- 6) Upon the successful and timely submission of bids (i.e. after Clicking "Freeze Bid Submission" in the portal), 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.
- 7) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### **ASSISTANCE TO BIDDERS**

1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tenderer the relevant contact person indicated in the tender.
  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 Help desk.
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**GENERAL INSTRUCTIONS TO THE BIDDERS**

- 1.0 The tenders 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.
- 2.0 Possession of a Valid Class II/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 website <https://eprocure.gov.in/eprocure/app> under the link "Information about DSC".
- 3.0 Tenderer are advised to follow the instructions provided in the "Instructions to the Tenderer" for the e-submission of the bids online through the Central Public Procurement Portal for E-Tender at <http://eprocure.gov.in/eprocure/app>

**Online Bid Form**

The bidder shall complete the online bid form and the appropriate price schedule furnished in the online bidding documents, indicating, inter alia for the goods to be supplied, a brief description of the goods, their country of origin, quantity and prices.

**Online Bid prices**

The Bidder shall indicate on the Price Schedule the unit price and total bid prices of the goods it proposes to supply under the Contract. To this end, the Bidders are allowed the option to submit the online bids for any one or more schedule specified in the "Schedule of Requirement" and to offer discounts for combined schedules. However, Bidders shall quote for the complete requirement of goods and services specified under each schedule on a single responsibility basis, failing which such bids (for the schedule in question) will not be taken into account for evaluation and will not be considered for award.

For taking assistance for bid submission, if any

**CPP Portal website:**  
**[www.eprocure.gov.in](http://www.eprocure.gov.in) CPP Portal Help**  
**Desk Toll Free No.:18002337315,**  
**180030702232**

**4.0 Scope of Tender:**

Indian Institute of Technology, Indore (IITI) invites online Item rate tenders for "**Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT**



**Indore** The successful tenderer shall complete the works within the completion period specified in the Notice Inviting Tenders (NIT). Complete scope/technical specifications/ detailed description for schedule of work is attached with NIT

**5.0 Non-Association / Relation:**

Should a contractor or a tenderer have a relative, employed in IITI or in case of partnership firm or company incorporated under the Indian company act, should a partner or relative of the partner or a shareholder be employed in a responsible capacity in IITI, the authority inviting the tender should be informed of the fact at the time of submission of tender, failing which the tender may be rejected. If such a fact is suppressed at the time of tendering and comes to light at any time after acceptance of tender, the contract may be rescinded.

**6.0 Eligibility Criteria:**

6.1. Registered with any government organization and should have executed similar nature of works (Water supply related and STP) during the last five financial years ending with March 2023 as mentioned below.

One similar nature of work costing not less than Rs. 28.40 Lakh.

or

Two similar nature of works costing not less than Rs. 21.30 Lakh.

or

Three similar nature of works costing not less than Rs. 14.20 Lakh.

**Similar Works:**

**“AMC of (650 KLD capacities or more) Sewerage Treatment Plant (STP).**

6.2 Contractor should have maintained an average annual turnover of Rs. 17.75 lacs during the last Three financial years ending with March 2023 as per statement - I.

6.3 The tenderer should submit details of works completed during the last 05 years with year ending on 31<sup>st</sup> March 2023 and works on hand as per the proforma available in tender document as per statement - II.

6.4. The tenderer shall furnish a copy of valid GST registration with commercial tax department.

6.5 The tenderer should furnish a copy of permanent account number (PAN) and copy of current last 03 years latest income tax returns submitting along the proof of receipt.



- 6.6 Current solvency certificate minimum of Rs.14.15 lakhs in original from a scheduled commercial bank. The certificate should not be older than 1 year.
- 6.7 Details of works in hand and, yet to be completed as on the date of submission of the tender and works for which tender have been submitted are to be furnished as per statement – III.
- 7.0 The tenderer should furnish information on litigation history in which the tenderer is the petitioner as per the statement – VI.

**8.0 Cost of Tendering:** The Tenderer shall bear all costs associated with the preparation and submission of his Tender, and the IITI will in no case/way be responsible and liable for those costs.

The Tenderer, at the tenderer's own responsibility and risk is encouraged to visit and examine the Site of Works and its surroundings and obtain all information that may be necessary for preparing the Tender and entering a contract for **“Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore.”**. The costs of visiting the site shall be at the Tenderer's own expenses.

**9.0** The tenderer should submit the particulars in the format specified in the tender schedule.

**10.0** The Tenderer shall be deemed to have examined all instructions, forms, terms, and specifications in the Documents. Failure to furnish the information required by the Tender Document or submission of a Tender not substantially responsive to the Tender Documents in every respect will be at the Tenderer's risk and may result in the rejection of the Tender.

The several documents forming the contract are to be taken as mutually explanatory of one another, and Special Conditions are in preference to General Conditions.

#### **11.0 Amendment of Tendering Documents**

Before the deadline for submission of Tenders, the IITI may modify the Tender documents by issuing addenda. Any addendum thus published on Institute's website shall be part of the Tender documents.

To give prospective Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the IITI may extend, if necessary, the deadline for



submission of Tenders.

### **12.0 Period of validity of Tender**

The Tender shall remain valid for a period of 90 days after the last date of the submission of the tender. A Tender valid for a shorter period, may be rejected by the IITI.

### **13.0 Language of Tender:**

The document shall be written in English language. The total amount should be written in the same language.

### **14.0 Tender Submission:**

The Tender submitted by the Tenderer shall comprise of the following:

**Technical bid** comprising of :

- Eligibility Criteria Information
- Instructions to tenderers
- Each page of the tender documents duly sealed & signed by the authorized person of the firm/ company as token of acceptance. If any deviation is proposed by the tenderer the same must be clearly indicated and enclosed as deviation list but tenders with significant deviations list and merely enclosing tenderer's printed conditions or their own terms and conditions will make the tender liable for rejection.
- Specifications
- Receipt of earnest money deposit as laid in these instructions to tenderers.

**Price Bid** comprising of :

Price Schedule with prices (Both in words and in figures) strictly in accordance with the price schedule format of the tender document. Departure from the price schedule format may render the tender liable for rejection.

### **15.0 Tender Prices**

The contract shall be for the whole works as described in tender document based on the priced Schedule of Quantities submitted by the Tenderer.

The tender submitted on behalf of a Firm/Company, shall be signed by a person who has the proper legal authority on behalf of the Company to enter into the contract; otherwise, the tender is liable to be rejected. Each page of the tender document is





required to be signed by the authorized person submitting the tender, affixing the Firm/company seal in token of their having examined and acquainted themselves with the contents of each page. The forms of tender are to be filled in completely. Any tender with any of the documents not duly signed is liable to be rejected.

The Tenderer shall fill in the rates for all items of the Works described in the Schedule of items. In case the rates are not filled for any of the Items of Schedule of items, in such cases the rate will be considered as zero and the contractor has to accept for the amount arrived based on zero rate for non-quoted items. Failure to comply with either of these conditions will make the tender liable for rejection and forfeiture of Earnest money.

The GST payable by the Contractor under the contract, or for any other cause, shall be included in the rates, prices. Tenderers must include in their rates, the cost of transportation of materials to site, GST rates under the HSN / SAC code should be included in price bid of BOQ. The taxes levied other than IT should be paid either directly by the contractor to the statutory authorities and challans/proof of payment with acknowledgement shall be provided by the contractor before release of the payment of next bill or shall be deducted at source. Contractor should also take a Group Insurance Policy for his Workmen, Supervisors and Engineers working on site for an adequate insurance cover. IITI shall not be responsible for any accident or any untoward/unforeseen event involving workmen, labor, supervisor or engineer or any person directly or indirectly associated with the execution of work. The insurance policy to be obtained by the successful Tenderer must be comprehensive and shall cover all associated risks (known and unknown) from any Government Insurance Company.

The rates quoted in the tender shall include cost of telephone rent and call charges, for execution of work at site, hire for any tools and tackles, shed for materials, marking out and transportation complete, cleaning the buildings and surroundings after execution of the total works and dumping the waste at designated place as directed by the IITI in all respects. The rates quoted in the tender shall be treated as rates for finally completing the item of work.

The rates and prices quoted by the Tenderer shall be fixed for the duration of the contract and shall not be subject to escalation or adjustment on any account even if the work is delayed due to unavoidable circumstances beyond the control of owner.





The calculations made by the tenderer should be based upon specifications of the items of work which are furnished in the Schedule of items, the items of work irrespective of the quantities which may vary shall be carried out at the same accepted tender rates and no escalation in the rates will be entertained whatsoever.

The tenderers must obtain for themselves on their own responsibility and their own expenses all the information which may be necessary, including risks, contingencies and other circumstances to enable them in making a proper tender and for entering into a contract.

#### **16.0 Format and signing of Tender document.**

- a) The tenderer shall fill online tender for “ **Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore**” which shall include Tender form duly signed by the tenderer on their letter head along with documents and priced BOQ document.
- b) The Tender shall contain no alterations or additions, except those to comply with instructions issued by the IITI, or as necessary to correct errors made by the Tenderer, in which case such corrections shall be initialed by the person or persons signing the Tender. **ANY CONDITIONAL TENDER WILL BE SUMMARILY REJECTED.**

#### **17.0 Clarification of Tenders**

To assist in the examination, evaluation, and comparison of Tenders, the IITI may, at his discretion, ask any Tenderer for clarification of his Tender, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by E-Mail, but no change in the price or substance of the Tender shall be sought, offered, or permitted.

TENDERERS ARE ADVISED TO VISIT THE SITE BEFORE QUOTING THE RATES. OTHERWISE, IT WILL BE ASSUMED THAT THE PARTY HAS ALREADY VISITED THE SITE BEFORE QUOTING THE TENDER. UNDERTAKING SHOULD BE FURNISHED IN ACCORDANCE WITH ANNEXURE ENCLOSED.

TENDERERS ARE ADVISED TO ATTENDED PRE-BID MEETING FOR SEEKING ANY CLARIFICATIONS FOR BIDDING.

#### **18.0 Examination of Tenders and Determination of Responsiveness :**

Prior to the detailed evaluation of Tenders, the IITI will determine whether each Tender



- (a) meets the eligibility criteria;
- (b) has been properly signed and meets the requirements.
- (c) is accompanied by the required securities and.
- (d) is substantially responsive to the requirements of the Tendering documents.

A substantially responsive Tender is one which confirms to all the terms, conditions, and specifications of the Tendering documents, without significant deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works (b) which limits in any substantial way, the IITI rights or the Tenderers' obligations under the contract; or (c) whose rectification would affect unfairly the competitive position of other Tenderers presenting substantially responsive Tenders.

If a Tender is not substantially responsive, it will be rejected by the IITI, and may not subsequently be made responsive by correction or withdrawal of the nonconforming deviation or reservation.

#### **19.0 Correction of Errors**

Errors in the Schedule of Quantities shall be dealt with in the following manner:

In the event of a discrepancy between the rates quoted in words and the rates in figures, rate quoted in words shall be deemed to be correct.

In the event of an error occurring on account of arithmetical calculations the same shall be corrected according to rates written in words and quantities in B.O.Q.

#### **20.0 Evaluation and Comparison of Tenders**

- a) The IITI will evaluate and compare only the Tenders determined to be eligible and substantially responsive as per tender condition.
- b) Lowest bidder (L1) will be decided based on the rate quoted by individual bidder on total estimated cost of tender, subjected to negotiation, if beyond acceptable limit.

#### **21.0 Award criteria**

- a) The work will be awarded to the L1 bidder.
- b) The acceptance of Tender will rest with the IITI, which does not bind itself to accept the lowest tender and reserves to itself the authority to reject completely / partially, any or all of the Tender/s received without the assignment of a reason.
- c) The IITI reserves to itself the right of accepting the whole or any part of the Tender



and the Tenderer shall be bound to supply / perform the same at the rate quoted.

d) The IITI reserves to itself the right of omission of any item of work from the awarded tender at any time/stage during the execution of work.

e) IITI reserves the right to investigate the bidder history regarding the work records and in no case the agency should have been blacklisted or should have been received letter regarding the unsatisfactory of the work.

**22. Earnest Money Deposit (EMD):** Rs. 71,000 (Rs. Seventy-One Thousand only)

to be submitted online through the link given below:

<https://forms.edugfix.com/indoreiit/add>

**NOTE:** As per GFR 2017 and CPWD office memorandum No. DG/MAN/Misc./10 dated 27-06-2017, MSME registration certificate is valid for exemption from EMD for procurement contract, said exemption cannot be extended to construction works.

**23.0 Notification of award:**

The successful Tenderer will be issued a Letter of Acceptance (LOA) / Purchase Order (PO) / Work order and the date of commencement of work will be as mentioned in the LOA or P.O. or W.O.

**24.0 Performance Bank Guarantee.**

The successful tenderer shall submit the performance bank guarantee for an amount equal to 5% of the tender amount in the form of Bank guarantee from nationalized bank within 8 days from issue of LOA/PO/ W.O. Bank guarantee is to be valid for a period after one year of the actual date of completion. This amount will be refunded after one year from the recorded completion certificate. This guarantee shall be submitted to A/C section IIT Indore directly through the bank.

Failure of the successful tender to make payment of performance guarantee shall constitute sufficient ground for the annulment of the award and forfeiture of EMD.

**25. SECURITY DEPOSIT:**

Security Deposit shall be deducted from each running bill and the final bill to the extent of **2.5%** of the gross amount payable subject to a maximum amount of 2.5% of the tendered value as per clause 17 of GCC. This is against defect liability period/warranty period of one year.

**26.0 During Execution:**

The Contractor shall carry out all the work strictly in accordance with the specifications and instructions of the IITI. The Contractor is bound to carry out any items of work necessary for



the completion of the job even though such items are not included in the schedule of quantities and rates. Schedule of instructions in respect of such additional items and their quantities will be issued in writing by the IITI. Rates for such items of work will be from actual prevailing market rates of similar items along with transport, tax, installation, testing, commissioning with 15% as contractor's profit & overhead. The rates approved by the IITI in such cases will be final.

The Contractor shall get the quality of work done inspected for material and workmanship at different stages of execution as per instructions given by the IITI or their representative from time to time. Any item of work done which is found not conforming to the Contract shall be rejected by the IITI. The decision of the IITI in such cases shall be final.

The Contractor shall not be entitled to any compensation suffered by him on account of delays in commencing or executing the work whatever the cause of delay may be, including delays arising out of modifications to the work entrusted to him or in any subcontracts connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such other works or in procuring Government controlled or other building materials for any other reasons whatsoever. The IITI shall not be liable for any sum besides the tender amount, subject to such variations as are provided for herein and as instructed by the IITI. However, the necessary time extension will be given if the delays are not attributed to the Contractor.

IIT Indore reserves the right to use the contractor's deputed staff for any Civil work inside the IITI campus, nothing extra shall be paid on account of this.

**27.0 Time Period Of Contract Engagement:**

This contract period will be valid for a period of 365 days from the 2<sup>nd</sup> day of issue of the work order/service order.

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**ARTICLES OF AGREEMENT**

Made at .....this.....day  
of.....2023

Between

Indian Institute of Technology Indore, Madhya Pradesh (hereinafter referred to as the IITI which expression shall include its heirs, Executors, Administrators & Assignees) of the one part

and

.....  
..... (Hereinafter referred to as the Contractor which expression shall include his heirs, Executors, Administrators & Assignees) of the other part

WHEREAS the IITI is desirous of carrying out “**Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore**”, and the specifications and the priced Schedule of quantities have been signed by or on behalf of the parties hereto and WHEREAS the Contractor has agreed to execute up to and subject to the conditions set forth herein (hereinafter referred to as “the work shown against each purchase order” and described in “the said Specifications” and the said “Priced Schedule of Quantities at the respective Rates mentioned in the Priced Schedule/ Purchase Order of Quantities attached.

And WHEREAS the Contractor has agreed to submit the performance guarantee to IITI for Rs. .... (Rupees.....Only) by him as performance guarantee for the due fulfillment of the contract to the satisfaction of the owner.

**NOW IT IS HEREBY AGREED AS FOLLOWS:**

- (1) In consideration of the payments to be made to the Contractor as hereinafter provided he shall upon and subject to the conditions of contract execute and complete the works shown upon the said drawings and such further detailed drawings as may be furnished to him by the IITI and described in the Specifications and the said Priced Schedule of Quantities.
- (2) The IITI shall pay the Contractor such sums as shall become due and payable hereunder at the times and in the manner specified in the said conditions.
- (3) The tender agreement, documents and terms and conditions of NIT above mentioned



shall form the basis of this Contract and the decision of the IITI as mentioned in the Conditions of the Contract in reference to all matters of dispute as to the material, workmanship or account and as to the intended interpretation of the clauses of this agreement or any other document attached hereto shall be final and binding on both parties.

- (4) The IITI reserves the right of altering the drawing and nature of work and of adding to or omitting any items of work and of having portions of the same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice of this contract.
- (5) The said Contract comprises the work above mentioned and all subsidiary works connected there to within the same site as may be ordered to be done from time to time by the IITI even though such works may not be shown or described in the said specifications or the Priced Schedule of Quantities.
- (6) The said conditions shall be read and construed to be forming part of this agreement and the Parties hereto will respectively abide by and submit themselves to the conditions and stipulations and perform the agreement on their parts respectively in such conditions contained.
- (7) All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in Indore and only the courts in Indore alone shall have jurisdiction to determine the same.
- (8) The arbitrator for fulfilling the duties set forth in the arbitration clauses as defined with tender conditions of contract.
- (9) Arbitration: The Contract shall be governed by, and construed in accordance with the laws of India. The dispute will be settled following the provisions of Arbitration and Conciliation Act, 1996. Both Parties agree that the results and awards of any such arbitration shall be binding on both Parties. Venue of Arbitration shall be INDORE.
- (10) The several parts of this contract have been read to us and fully understood by us.

As witness our hands this ..... day  
of.....2023.....

Signed by IITI (Maintenance In-Charge)

Signed by the said Contractor

.....

.....



**भारतीय प्रौद्योगिकी संस्थान इंदौर**  
*Indian Institute of Technology Indore*

*Infrastructure  
 Development  
 Office*

In the presence of Witness

In the presence of Witness

.....

.....

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**INDIAN INSTITUTE OF TECHNOLOGY INDORE**

**TENDER FORM**

Percentage Rate Tender/Item Rate Tender & Contract for Works (A) Tender for the work of

.....  
.....

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 President of India 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.

I/We ..... agree to keep the tender open for 90 days from the due date of its opening in case of single bid system ..... from the date of opening of technical bid in case tenders are invited on 2 /3 bid/ system for specialized work and not to make any modification in its terms and conditions.

A sum of Rs. .... is hereby forwarded in cash/receipt treasury challan/deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by a scheduled bank as earnest money.

A copy of earnest money in receipt treasury challan/deposit at call receipt of a scheduled bank/fixed deposit receipt of scheduled bank/demand draft of a scheduled bank/bank guarantee issued by a scheduled bank is scanned and uploaded (strike out as the case may





be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/ We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee 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 or 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 I 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.

Dated

Signature of Contractor

Witness:  
Address:

Occupation:



**A C C E P T A N C E**

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the IIT Indore for a sum of Rs.

.....(Rupees.....)  
.....)

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

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

For & on behalf of the IIT Indore.

Signatures .....

Dated:

Designation .....



**STATEMENT – I**

Details of value of civil works (Turnover) executed in each year during the last three financial years by the Tenderer.

Sl. No.	Financial Year	Value in Rs.
1.	2020-21	
2.	2021-22	
3.	2022-23	

Attach certificate(s) issued by the Executive Engineer or concerned head of the department showing work wise / year wise value of work done in respect of all the works executed by the Tenderer during last three years.

**Signature of the Contractor**

**STATEMENT – II**

Details of similar works completed in the name of the Tenderer during the last five financial years.

Financial Year	Name of Work	Value of Contract	Stipulated Date of Completion & actual date of completion	Proof of Completion Attached (Yes/No)
2018 - 2019				
2019 - 2020				
2020 - 2021				
2021 - 2022				
2022 - 2023				

Attach certificates issued by the Executive Engineer or concerned head of the department showing work wise / year wise value of work done and date of completion.

**Signature of the Contractor**



**STATEMENT – III**

***Details of Existing Commitments.***

Details of works on hand and, yet to be completed as on the date of submission of the Tender and works for which Tenders have been submitted are to be furnished.

**A) Existing Commitments on ongoing works:**

Name of Work	Name and Particular of Division Where Work is being executed	Value of Work in progress	Position of Work in	Remarks

Attach certificates issued by the Executive Engineer or concerned head of the department indicating the balance work to be done, and likely period of completion.

***Signature of the Contractor***

**STATEMENT – IV**

***Availability of Equipment for Operation, Maintenance***

The tenderer should furnish the information required below, regarding the availability of the equipment required for execution & commissioning.

Sl. No	Details	Number	Number		
			Owned	Leased	To be procured
1	2	3	4	5	6

***Signature of the Contractor***



**STATEMENT – V.**

***Availability of Key Personnel***

Qualification and experience of Key Personnel proposed to be deployed for execution of the Contract.

Sl. No	Name	Designation	Qualification	Total Experience	Working with the Tenderersince.
1	2	3	4	5	6

***Signature of the Contractor***

**STATEMENT – VI**

Information on litigation history in which Tenderer is the Petitioner.

S. No	Case No. /Year	Court where e filed.	Subject Matter /Prayer in the case.	Details of Responden ts	Present Stage.
1	2	3	4	5	6

***Signature of the Contractor***



## **GENERAL CONDITION OF CONTRACT**

1. General Conditions of Contract 2020 Maintenance Works CPWD will be applicable to this contract with up-to-date correction slip April 2023.
2. The work shall be carried out according to the CPWD specifications 2019 amended upto date correction slips. If any item is not available in CPWD specifications, then relevant ISI code or specifications as per the decision of the officer in charge shall be followed.
3. The rates tendered by the contractor should include all royalties, taxes, carriages, all lead and lifts and stacking etc. complete up to the site of work. Nothing extra shall be payable to him on this account.
4. The contractor must get acquainted with the proposed site of the work and study specifications and conditions carefully before tendering.
5. The rejected materials shall be replaced immediately by the contractor at his own risk and cost, if necessary, the same will be removed at the contractor's risk and cost. The Department will not be responsible for any loss and theft.
6. The contractor shall bear all charges for cartage, storage, and safe custody of the materials.
7. No payment will be made to the contractor for damages caused by rains or other natural calamities during the execution of work and no such claim on this account will be entertained.
8. The contractor shall not employ women and men below the age of 18 years on the work.
9. The sample materials shall be approved by the Officer –in-charge before supply/ execution of work.
10. The security deposit shall not be refunded till the clearance certificate is obtained from the Maintenance-In-Charge, IIT Indore.
11. The contractor should maintain logbook and other reading registers as required on a day-to-day basis and should get it countersigned by Officer -in-Charge.
12. The contractor should maintain the attendance register of staff deployed by him for carrying out the work and should be countersigned by the Officer-in-charge on day-to-day basis.
13. IIT Indore does not bind itself to accept abnormally low bids. The rates quoted by the tenderer/bidder should be able to demonstrate the capability of the tenderer/bidder to deliver the contract at the offered price. Abnormally low bids/rates will be subject to analysis by IIT Indore. If required, IIT Indore may call written clarification from bidder, including detailed price analysis of the bid price in relation to scope, schedule, allocation of risks and responsibilities and any other requirements of the bid document and tenderer/bidder shall have to furnish Rate Analysis for the scrutiny of rates by IIT Indore



within stipulated time. IIT Indore reserves the right to reject the bid if bid is found to be abnormally low to deliver/perform the contract.

14. The appointed contractor is required to generate End of the Day (EoD) reports on the status of works, labour deployed, etc. to the concerned officer of the INSTITUTE. The EoD reports shall be signed by the Engineering In Charge of the work on every day basis.
15. Contractors shall follow the prescribed formats/procedures for official documentation like registers, etc. as stipulated by IIT Indore from time to time.
16. The Institute shall get the work satisfactorily carried out through its other agencies at the risk and cost of the contractor. Apart from making payments to the other agencies from the dues of the contractor, the Institute shall also levy a penalty as above.
17. In case of emergency work, no extra payment for working at odd hours will be made.
18. The property will be handed over to the Contractor on an 'as is where is' basis and the contractor shall ensure proper service to a reasonably satisfactory level.
19. IIT Indore reserves a change of scope of work during the contract period.
20. The contractor shall at his own expense procure and provide all materials required for the work.
21. The contractor shall procure all the materials in advance so that there is sufficient time to test and approving of the materials and clearance of the same before use in work.
22. All materials brought by the contractor for use in the work shall be checked from the Engineer-in-Charge or his authorized representative of the work on receipt of the same at site before use.
23. The contractor shall also employ the necessary watch and ward establishment for the safe custody of materials at his own cost.
24. RECORDS: Contractor shall keep record of installed equipment. inventory /materials and equipment's and store, contractor shall ensure that log report of all the works / jobs carried out and the performance / inspection reports by the persons deployed for the purpose of this contract is maintained at the premises of the Institute. This log report should be checked, and counter signed by the contractor on a monthly basis and produced before the engineer-in-charge of the work, whenever asked to do so.
25. GCC should be seen, read, and interpreted along with the Special Conditions of Contract of this tender document.

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## **SPECIAL CONDITIONS OF CONTRACT**

- Complete Maintenance including daily and monthly logs should be submitted along with the bill to the Engineer In-charge
- Agency needs to submit the report and available for presentation as and when required by institute.
- Lab setup will be provided by the institute and the same should be used and maintained for testing as per standards of WHO.
- Maintenance and Surveillance of treated water pipeline laid in the campus area.
- Other details are as follows:

### **1. Tools, tackles, and consumables:**

Providing Ladders / Scaffolding for high rise works/All tools required for plant work/civil works shall be within the scope of contractor. The contractor shall be fully responsible for arranging the supply of required tools & tackles, cable crimping tools, ladders etc. In addition to the above, the personal protective equipment's of proper rating (PPE) like helmets, safety belts, hand gloves, safety shoes, torch, ladder, raincoat etc. for all working persons shall also be arranged.

Testing equipments required for the work shall be in good condition (calibrated annually) and arranged by the contractor. The testing instruments shall be of sufficient capacity and quantity as per the site requirements. All the instruments are used in plumbing, to be arranged by the contractor.

No extra payment for the same will be made by the Institute.

List of availability of Equipment's for Operation, Maintenance, Testing & Commissioning should be furnished as per statement – IV.

### **2. The contractor shall employ the technical and non-technical manpower.**

During contract period, the contractor shall depute qualified, experienced, and competent manpower as per the site set-up/staff requirement as per tender terms and condition for executing the work. During execution of operation & maintenance activities, in case some additional manpower is required, contractor shall provide the same free of cost for completion of works within the scope of the contractor. For entry into the institute, the contractor shall submit the details of the employees i.e. Address proof, I.D. proof, photo etc. for gate pass of all deputies.

The contractor shall not be entitled for any additional payment during the tenure of the contract due to increase in cost of manpower or any.

The price offered by the contractor shall include the charges for any minor maintenance, the details of which may not be explicitly available in the tender specification, but it is essential for this work.





- 3. Cleaning of the area:** The contractor shall maintain the installations/Buildings/area of works, commissioning, and working activities clean and tidy inside as well as around the installations/area of works and buildings. This shall also include sweeping, mopping, cleaning of cobwebs, removal of scrap generated during contract period, etc. in the building/area of works. All required materials for housekeeping like broom, cobweb broom, mop, bucket, soap, detergents, phenyl, etc. shall be arranged by the contractor. No rags and waste etc. shall be thrown near the building. This shall be deposited in the scrap yard and dustbins provided nearby, as per the department instructions. Also, furniture and fixture therein shall be maintained.

It is the responsibility of the contractor to hand over the entire system to IITI on completion of the contract period in working condition along with inventory. After completion of work, the contractor should not dump construction material or debris on working area.

The final handing over / taking over will be done after joint inspection by IITI and contractor on the completion of contract period. The liability for damage/ replacement shall be limited to 05% (Five percent) of the order value.

**4. Inspection:**

Inspection will be carried out by IITI as and when required. Inspection by statutory bodies/ authorities will be under the scope of contractor. The contractor shall inform IITI authority of the schedule of such statutory bodies/ authority's inspection for any sort of statutory inspections. Alternatively, IIT Indore may also inform the contractor for visit of statutory inspections and contractor shall be duty bound to comply with the requirements of the inspections. IIT Indore shall be indemnified as and when a contract is awarded to the contractor for all statutory inspections/fulfillment of statutory requirements.

All the statutory fees/ charges need to be paid for functional/ operation of the equipment shall be paid to government bodies by contractor. IITI will reimburse the same after the submission of original receipt to IITI.

**5. Safety:**

Specifications and standards: CPWD specifications / National Building Code/ IS standards shall be standard specifications for all works. The installations, commissioning, testing activities shall be in conformity with relevant Indian Standard



specification, National Electric codes, Indian Electricity Rules/Act.

The contractor, his agents, representatives, workmen etc. shall strictly observe the orders pertaining to CPWD Safety Codes/fire/LV/HV/EHV/High Rise workings etc. precautions prevailing within the restricted areas/electrical substations/Lab areas etc. During such times, the workmen should be supervised by their site supervisor as a precautionary measure. The regular team of the contractor shall be very aware of High-rise precautions/firefighting, Cardio-Pulmonary Resuscitation, first aid etc.

While working at height, Personal Protective Equipment's (PPE) like safety belts, helmet, ladder, and scaffoldings etc. shall be used as per the recommended safety guidelines.

**6. Accident or injury to workmen/ All-risk covered insurance:**

IITI shall not be responsible for any injury or loss of any workers of the contractor that may take place while on work. Any compensation or expenditure towards treatment for such injury or loss of life shall be the sole responsibility of the contractor. The contractor is solely responsible for any damage or injury or accident that may occur to any of his personnel working under this contract. He will not claim any compensation from IITI. The contractor shall provide all risk covered insurance to its employees deputed at IIT Indore.

To meet any type of health emergency to the employee, a dedicated vehicle along with driver shall be made available by the contractor immediately.

**7. Theft of Parts/Materials:**

The contractor shall be fully responsible for theft, burglary, fire, or any mischievous deeds by his workers/ staff and shall replace the items under such category. Any loss that occurred due to negligence will be recovered by the contractor. Security/ Safety of all materials brought at site shall be the responsibility of responsibility of the contractor.

**8. Engagement of labor and Wages:**

Contractors shall be solely responsible for payment of wages/salaries and allowances to their personnel as per the rules or act applicable. All central/ state/ local laws & bye laws applicable will be observed by the contractor and IIT Indore will be kept indemnified of such



payable by the contractor.

The people deployed by the contractor for the services mentioned above shall be the employees of the contractor for all intents and purposes and the persons so deployed shall remain under the control and supervision of the contractor.

The contractor shall at his own cost, take necessary insurance cover up to the handing over in respect of the aforesaid services rendered to IIT Indore and shall comply with the statutory provisions of Contract Labor (Regulation & Abolition) Act, 1970; Employees State Insurance Act; Workman's Compensation Act, 1923; Payment of Wages Act, 1936; The Employees Provident Fund (and Miscellaneous Provisions) Act, 1952; Payment of Bonus Act, 1965; The Minimum Wages Act, 1948; Employer's Liability Act, 1938; and/or any other rules/ regulations and/ or statutes that may be applicable to them. The contractor shall indemnify the Institute against all claims which may be made upon the Institute whether under the aforesaid statutes or any other statute in force during the currency of this contract.

The contractor shall deploy his persons in such a way that they get weekly rest. The working hours / leave, for which the work is taken from them, do not violate relevant provisions of the Shops and Establishment Act. The contractor shall arrange to provide a reliever of equally qualified in case of absence/leave/off etc. The contractor shall in all dealings with the people in his employment have due regard to all recognized festivals, days of rest and religious or other customs. In the event of the contractor committing a default or breach of any of the provisions of the Labor Laws including the provisions of Contract Labor (Regulation and Abolition) Act, 1970 as amended from time to time or in furnishing any information, or submitting or filling any statement under the provisions of the said regulations and rules which is materially incorrect, he shall without prejudice to any other liability pay to the Director, IIT Indore, a sum as may be claimed by IIT Indore.

No accommodation & transportation facility will be provided by the IIT Indore except in any emergency subjected to approval of competent authority after due verification of the application.

Any unauthorized person (or visitor) shall not be allowed to come inside the campus without the approval of the Engineer in charge and Security officer. Staff deployed at IIT Indore will get the temporary ID card which shall be available with the concern at the time of duty. For



proper identification of the employees of the contractor deployed for the work, contractor shall issue identity cards bearing their photographs/ identification etc. and such employees shall display their identity cards at the time of duty.

Engineer-in-charge, IIT Indore shall be at liberty to carry out surprise checks on the people deployed by the contractor to ensure that persons deployed by him are doing their duties.

For performing the assigned work, the contractor shall deploy medically and physically fit persons. The contractor shall ensure that the people are punctual and disciplined and remain vigilant in the performance of their duty. Persons engaged by the contractor shall be from amongst properly trained technicians of high integrity and good conduct, and shall be conversant in the local language i.e., Hindi. In no circumstances, persons under 18 years of age be employed.

The contractor shall further keep the IIT Indore indemnified against any loss to the IIT Indore property and assets. IIT Indore shall have further right to adjust and/or deduct any of the amounts as aforesaid from the payments due to the contractor under this contract.

The contractor shall ensure that the persons so deployed do not allow any property of the IIT Indore related to Equipment's to be taken out of the premises without a Gate Pass signed by the Engineer in-charge of the IIT Indore.

Saturdays / Sundays should be utilized primarily for the installations, commissioning, testing activities, where shutdown is required, in consultation with & approval of the engineer-in-charge of IIT Indore.

In case any staff not found up to the mark and not able to work properly or behave improperly, he will have to be changed as per the instruction of the Engineer in charge, IIT Indore.

## **9. Safety Codes and Labor Regulations**

i) In respect of all labor employed directly or indirectly on the work for the performance of contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provision, B.I.S. recommendations, factory act, workman's compensation act, labor laws, CPWD code and instructions issued from time to time. Failure



to provide such safety requirements would make the tenderer liable for a penalty of Rs. 2000/- for each violation. In addition, the Engineer-in-charge shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.

ii) The contractor shall provide necessary barriers, signals and other safety measures while carrying out the installation or wherever necessary to avoid accidents. He shall also indemnify the Department against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident that occurred or damage incurred or claims arising in their form during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment will be made to the contractor due to the above provisions thereof.

**10. PENALTY: : IITI may impose penalty of .1% on each event i.e. maximum up to 10% of the total cost of the work order to the contractor for noncompliance of any work / non submission of required documents.**

**The other major reasons for penalty includes:**

1. Non-performing assets at the designed capacity and characteristics and quality of treatment.
2. Non-performance of employees of the contractors.
3. Delayed response to recovery of the system beyond 24 hours.
4. Non- submission of report card of the plant and system or absence to present the report card as directed by Engineer In-charge.

**11. SUSPENSION:** - IITI may by written notice of suspension to the contractor, suspend all payments to contractor hereunder if the later fails to perform any of its obligations under this contract, including the carrying out of the services provided that such notice of suspension (i) shall specify the nature of the failure and (ii) request the contractor to remedy such failure within the period not exceeding fifteen (15) days, after such notice of suspension.

**12. TERMINATION:** - Termination to the contractor may be given after the occurrence of any of the events specified below:

- a) If the contractor fails to remedy a failure in the performance of their obligations.
- b) If the contractor fails to comply with any final decision reached because of arbitration proceedings.
- c) If the IITI, in its sole discretion and for any reason whatsoever, decides to terminate this contract.
- d) If the contractor, in the judgement of the IITI has engaged in corrupt or fraudulent



practices in executing the contract.

- e) If the agency does not start the work or does not perform the assigned work properly and/or in time, their deposits including performance guarantee shall be forfeited. Such agencies shall be debarred for tendering for a period of three years. Such action shall be decided by the competent authority.
- f) The Department may at any time terminate the Contract by giving written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Department.
- g) The contract is liable to be terminated if at any stage it is found that the contract was obtained by willful miss-representation in terms of documents or undertakings by the contractor.
- h) In case the contract is terminated, the balance amount of fee if any, paid earlier (advance) shall be paid back by the contractor to IITI within thirty days of termination letter, failing which the same shall be recovered by encasing the existing performance bank guarantee/security deposit submitted by contractor.

**14. PAYMENT:** - Payment will be made after satisfactory completion of services and on presentation of invoices/e-invoices as per Govt. directives on monthly basis. No advance payment will be made. Income tax and all other statutory tax deductions at source as per the rules in force will be deducted from the bill.

The contractor is bound to distribute the salary/wages to his worker by 7th of each month positively unless and until there is an emergent work, the contractor shall make the payment of wages to the staff deployed at work in their bank account through cheque or draft or e-transaction and will submit the evidence of such transaction like photocopy of bank passbook / Account statement of staff etc. to the department along with bill to insure the payment of wages. The contractor shall make the payment of wages to the staff deployed at work according to the order of minimum wages October 2023 or updated.

The contractor shall deduct worker subscription towards Provident Fund and ESIC, as per rules, he shall deposit the same along with his contribution into the respective accounts of the workers and submit the details to this office for verification.

Recovery will be carried out in case of absence of manpower deputed at site.



The contractor shall provide uniform along with Badge and shoes within 15 days of start of work. In the event of non-compliance, a recovery of Rs. 100/-per day per employee shall be made.

Payments to the Contractor shall be made, 'on monthly basis' after production of Following documents:

Documentary proof of disbursement of wages to the workers. The copy of the salary wage register in the format shall be produced with the RA bills or final bill.

Forms A, B, C and D as per Ministry of Labor and Employment notification GSR 154(E).

Proof of deposit of provident fund and ESIC contribution to the respective authorities.

Copy of relevant period attendance register.

Copy of Identity card / Gate pass of the staff deployed.

Daily Attendance Sheet duly certified by respective engineer in charge.

**15. Notices:** Any notices given by one party to the other pursuant to this Contract shall be sent to other party in writing or by E-mail, tele-fax, or facsimile and confirmed in writing to the other party's address as below:

**The Maintenance in Charge**

**IIT Indore, Infrastructure Development Office,**

**Indore.**

A notice shall be effective when delivered or on the notice's effective date, whichever is later.

**16.Co-ordination with other Agencies**

The contractor during the execution of the works shall co-ordinate with other agencies associated work with building / work areas and shall work in harmony with them without causing any hindrance or obstruction on the progress of other's work in any way.

**17.Care of the Building/ plan**

Care shall be taken by the contractor during execution of the work to avoid damage to the building. Care shall also be taken by the contractor to avoid the damage to any of these existing service/service lines, any part of the building etc. If any damage is caused to any of the existing services/service lines, or any part of the building the same shall be repaired/rectified and made functional or restored so its original finish by the contractor immediately at his own expenses failing which the same shall be repaired/ rectified and





made functional by department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding. He shall also remove all unwanted and waste materials arising out of the installation from the site of work from time to time.

**18. Warranty / Guarantee of Items / Works:**

In general, all new works shall be guaranteed for one year from the date of completion of work or from the date of supply of item, if the item is supplied by the contractor.

The contractor shall ensure adequate and prompt services free of cost during guarantee period, and against payment after guarantee period is over, in the form of maintenance, spares and personal as and when required during normal life span of the equipment and shall minimize the breakdown period. In the case of equipment supplied by other manufacturers, the firm shall submit the guarantee from the manufacturer for the same before the entire installation is taken over.

**19. DISPUTE RESOLUTION:**

All effort is to be made to resolve disputes amicably. However, still if dispute arises the dispute shall be settled in the following manner:

- a. The dispute shall be referred to the Alternative Dispute Resolution body to be debated by the competent authority of the institute.
- b. In the event of any question, dispute/ difference arising under the agreement or in connection herewith (except as to matters the decision of which is specially provided under the agreement) the same shall be referred to the sole arbitration by the Director, IIT Indore & his decision will be final and binding to the contractor.
- c. If, after thirty (30) days the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Department or the Contractor may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.
- d. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the contract.
- e. The Arbitrator may give interim awards and/or directions, as may be required,





Subject to the aforesaid provisions the Arbitrator & Conciliation Act, 1996 and the rules made hereunder and any modification thereof from time to time being in force shall be deemed to apply to the arbitration proceedings under this clause.

- f. Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the GCC.
- g. Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the contract unless they otherwise agreed.
- h. The seat of arbitration will be Indore, Madhya Pradesh, Indore.

**20. JURISDICTION:** Disputes of any nature that may be arise in connection with the execution of this order shall be governed by the laws of India and subject to the jurisdiction of courts situated in Indore, Madhya Pradesh, India only.

**Place:**

**Name:**

**Date:**

**Signature**

## **COMMERCIAL AND ADDITIONAL CONDITIONS**

### **GENERAL:**

**This specification covers “Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore.”**

**Location:** The work is to be carried out on the premises of IIT, Indore.

These conditions are intended to amplify the General Conditions of Contract and shall be read in conjunction with the same. For any discrepancy between the General Conditions and these Special Conditions, the more stringent shall apply.

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

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

### **COMMERCIAL CONDITIONS:**

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

#### **Submission and opening of Tenders:**

- (i) The tender shall be submitted through e-tendering online.
- (ii) The tenderers are advised not to alter/deviate the technical specifications / items, scope of work, GCC/SCC, commercial terms, and conditions of NIT like terms of payment, guarantee, arbitration clause, escalation. If any alteration/deviation is found, even at the later stage, the contract may be terminated and PBG and security deposit may be forfeited.

**The Eligibility documents will be uploaded electronically which shall be comprised of the following:**

- i) Documents meeting eligibility criterion given in the “INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE”.



The price bid will be opened through e-tendering only, at the defined time and date of only those firms who are eligible.

Firms should clearly note that price bids with any condition including that of conditional rebates shall be rejected forthwith.

The IITI reserves the right to reject any or all the price bids and call for fresh prices /tenders without assigning any reason.

**1. TERMS OF PAYMENT AND OTHER FACILITIES FOR WORKER.**

1.1 The contractor is bound to distribute the salary/wages to his worker by 7th of each month positively, the contractor shall make the payment of wages to the staff deployed at work in their bank account through cheque or draft or e-transaction and will submit the evidence of such transaction like photocopy of bank passbook / Account statement of staff etc. to the department along with bill to insure the payment of wages. The contractor shall make the payment of wages to the staff deployed at work according to the order of minimum wages April 2023.

1.2 The main/associated contractor shall deduct worker subscription towards Provident Fund and ESIC, as per rules, he shall deposit the same along with his contribution into the respective accounts of the workers and submit the details to this office for verification.

The contractor shall provide uniform along with Badge and shoes within 15 days of start of work. In the event of non-compliance, a recovery of Rs. 100/-per day per employee shall be made.



**2. Qualification and Experience of the staff to be deployed :**

Sr. No.	Description of the post	Qty.	Qualification	Experience	Remarks
01.	Supervisor cum chemist	01	Supervisor should be graduate/BSc /ITI with more than 5 years of experience of running STP.	05 years relevant experience	Skilled
02.	Operator	04	IITI and more than 3 years' experience	03 years' experience	Semi-Skilled
03.	Helper	03	10 <sup>th</sup> /12 <sup>th</sup> Pass and more than 3 years	03 years' experience	Skilled / Semi-Skilled

**TERMS OF PAYMENTS FOR THE CONTRACTOR**

Payments to the Contractor shall be made, 'on monthly basis' after production of following documents:

- 2.1 Documentary proof of disbursement of wages to the workers. The copy of the salary wage register in the format shall be produced with the R/A or final bill.
- 2.2 Forms A, B, C and D as per Ministry of Labor and Employment notification GSR 154(E).
- 2.3 Proof of deposit of provident fund and ESIC contribution to the respective authorities.
- 2.4 Copy of relevant period attendance register.
- 2.5 Copy of Identity card / Gate pass of the staff deployed.
- 2.6 Daily Attendance Sheet duly certified by respective engineer in charge.
- 2.7 A report of the month containing all detailing of work done, number of breakdowns/interruptions, no of minor repairing work carried out, no of repair works in the treated water line carried out. Complete log data related to consumables, pump and motor running data, and other data related to preventive maintenance etc.



### **3. Termination for Insolvency**

The Department may at any time terminate the Contract by giving written notice to the Contractor, if the Contractor becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the Department.

### **4. Termination on account of willful misrepresentation**

The contract is liable to be terminated if at any stage it is found that the contract was obtained by willful miss-representation in terms of documents or undertakings by the contractor.

### **5. Settlement of Disputes**

If any dispute or difference of any kind whatsoever shall arise between the Department and the Contractor in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

- If, after thirty (30) days the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Department or the Contractor may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given.
- Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the contract.



- Arbitration proceedings shall be conducted in accordance with the rules of procedure specified in the GCC.
- Notwithstanding any reference to arbitration herein, the parties shall continue to perform their respective obligations under the contract unless they otherwise agreed.
- The seat of arbitration will be Indore, Madhya Pradesh, Indore.

#### **6. Limitation of liability**

Except in cases of criminal negligence or willful misconduct, and in the case of infringement pursuant to Clause 6,

- The Contractor shall not be liable to the Department, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the Contractor to pay liquidated damages to the Department and
- The aggregate liability of the Contractor to the Department, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

#### **7. Governing language**

The contract shall be written in English. All correspondence and other documents pertaining to the contract which are exchanged by the parties shall be written in the same language.

8. **Applicable Law** The applicable laws shall be that of Union of India.

#### **Notices**

Any notices given by one party to the other pursuant to this Contract shall be sent to other party in writing or by E-mail, tele-fax, or facsimile and confirmed in writing to the other party's address as below:



### **The Maintenance in Charge**

**IIT Indore, Infrastructure Development Office,**

**Indore.**

A notice shall be effective when delivered or on the notice's effective date, whichever is later.

### **9. Rates**

The rate quoted by bidder, shall be firm and inclusive of all taxes (including GST etc.), duties and levies and all charges for packing, forwarding insurance, freight and delivery, installation, testing, commissioning etc. at site including temporary constructional storage, risks, overhead charges, general liabilities/obligation etc. A certificate of TDS shall be issued by the department to the contractor. The tendered rates must be inclusive of all such taxes.

### **10. Taxes and Duties**

- A local Contractor shall be entirely responsible for all taxes, duties, license fees, etc, incurred until delivery of the contracted Goods to the Department.
- Income Tax, GST, labor cess & other statutory deduction etc. shall be made at source as per the prevalent laws. The deductions of security deposit, income- Tax, etc. shall be done after calculation of the above due payments as per clauses and net payment shall be reduced accordingly.
- Contractor will be entirely responsible for all taxes, stamp duties, license fees, etc and other such levies imposed outside India, custom duties, as well as for taxes and levies to be charged in connection with supplies made from India and services performed in India, and the Department shall pay all the customs duties and import taxes in consequence of the importation of the goods.
- Contractors will be entirely responsible for all taxes, duties, license fees, octroi, road permits, etc in connection with delivery of goods at site including incidental services



and commissioning. Price bid submitted by the Contractor shall include all taxes in the contract price. No 'C' / 'D' form shall be issued by the Department

- Income / Corporate Taxes in India:
- The Contractor shall be liable to pay all corporate taxes and income tax that shall be levied according to the laws and regulations applicable from time to time in India and the price bid by the Contractor shall include all such taxes in the contract price.
- Wherever the laws and regulations require deduction of such taxes at the source of payment, the Department shall effect such deductions from the payment due to the Contractor. The remittance of amounts so deducted and issuance of certificate for such deductions shall be made by the Department as per the laws and regulations in force. Nothing in the Contract, shall relieve the Contractor from his responsibility to pay any tax that may be levied in India on income and profits made by the Contractor in respect of this contract.
- The Contractor 's staff, personnel and labor will be liable to pay personal income taxes in India in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

- **CONTRACTOR INTEGRITY:**

The Contractor is responsible for and obliged to conduct all contracted activities in accordance with the contract using state-of -the-art methods and economic principles and exercising all means available to achieve the performance specified in the Contract.

**11. SECURITY DEPOSIT:**

Security Deposit shall be deducted from each running bill and the final bill to the extent of 2.5% of the gross amount payable subject to a maximum amount of 2.5% of the tendered value as per clause 17 of GCC. This is against defect liability period/warranty period of one year.





## 12. CONTRACTOR'S OBLIGATIONS:

Unless otherwise mentioned in the tender documents, the following works shall be done by the contractor and therefore, their cost shall be deemed to be included in their tendered cost- whether specifically indicated in the schedule of work or not: -

- i) The Contractor is responsible for managing the activities of its personnel or sub-contracted personnel and will hold itself responsible for any misdemeanors. The Contractor will treat as confidential all data and information about the Department, obtained in the execution of his responsibilities, in strict confidence and will not reveal such information to any other party without the prior written approval of the Department.

## 13. PATENT RIGHTS (Clause 6):

In the event of any claim asserted by a third party of infringement of copyright, patent, trademark or industrial design rights arising from the use of the Goods or any part thereof in the Department's country, the Contractor shall act expeditiously to extinguish such claim. If the Contractor fails to comply and the Department is required to pay compensation to a third party resulting from such infringement, the Contractor shall be responsible for the compensation including all expenses, court costs and lawyer fees. The Department will give notice to the Contractor of such claim, if it is made, without delay.

## 14. Safety Codes and Labor Regulations

- i) In respect of all labor employed directly or indirectly on the work for the performance of contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provision, B.I.S. recommendations, factory act, workman's compensation act, labor laws, CPWD code and instructions issued from time to time. Failure to provide such safety requirements would make the tenderer liable for a penalty of Rs. 2000/- for each violation. In addition, the Engineer-in-charge shall be at liberty to make arrangements and provide facilities as aforesaid and recover the cost from the contractor.
- ii) The contractor shall provide necessary barriers, signals and other safety measures while carrying out the installation or wherever necessary to avoid accidents. He shall also indemnify



the Department against claims for compensation arising out of negligence in this respect. Contractor shall be liable, in accordance with the Indian law and Regulations for any accident occurring due to any cause. The department shall not be responsible for any accident that occurred or damage incurred or claims arising in their form during the execution of work. The contractor shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment will be made to the contractor due to the above provisions thereof.

#### **15. Power Supply**

The power supply for testing and commissioning the complete installation shall be made available by the Department.

#### **16. Water Supply**

The water supply for testing and commissioning of the complete installation shall be made available by the Department.

#### **17. Machinery for Erection**

All tools and tackles required for unloading/ handling of equipments and materials at site, their assembly, erection, testing and commissioning shall be the responsibility of the contractor.

#### **18. Co-ordination with other Agencies**

The contractor during the execution of the works shall co-ordinate with other agencies associated work with the project and shall work in harmony with them without causing any hindrance or obstruction on the progress of work in any way.

#### **19. VARIATION IN QUANTITY:**

Quantities shown against each item of work or supply are tentative which may vary on either side (plus or minus). The contractor should ensure from the Engineer-in-charge the actual quantity required/ to be used/ to be supplied before bringing the materials at site. In case the actual quantity of material required at the site is less than the stipulated quantity, the contractor cannot claim to supply the entire quantity stipulated in the



schedule of quantities of work as well as cannot demand for payment thereof. The contractor shall therefore be very careful about the quantity of materials to be supplied /brought at site. The decision of the Engineer-in-charge in this regard shall be final and binding on the part of the contractor.

## **20. Quality of Materials and Workmanship**

- i) The components of the installation shall be such design so as to satisfactorily function under all conditions of operation.
- ii) The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- iii) All equipments and material to be used in work shall be manufactured in factories of good repute having excellent track record of quality manufacturing, performance and proper after sales service.
- iv) All equipments and materials to be used in the work shall be brand new having its date of manufacturing not more than 6 months old from the date of delivery at site with manufacturer's certificates, warrantee cards, technical catalogues, instructions, manuals and wiring diagrams, drawings etc.
- v) In order to ensure genuineness of equipments/materials, copy of invoice of each equipments/materials, custom clearance paper in case of imported materials duly authenticated by bidder shall be invariably produce to engineer-in-charge.

## **21. Care of the Building**

Care shall be taken by the contractor during execution of the work to avoid damage to the building. Care shall also be taken by the contractor to avoid the damage to any of these existing service/service lines, any part of the building etc. If any damage is caused to any of the existing services/service lines, or any part of the building the same shall be repaired/rectified and made functional or restored so its original finish by the contractor immediately at his own expenses failing which the same shall be repaired/ rectified and made functional by department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding. He shall also remove all



unwanted and waste materials arising out of the installation from the site of work from time to time.

**22. After Sales Services**

The contractor shall ensure adequate and prompt after sales service free of cost during guarantee period, and against payment after guarantee period is over, in the form of maintenance, spares and personal as and when required during normal life span of the equipments and shall minimize the breakdown period. In case of equipment supplied by other manufacturers, the firm shall submit the guarantee from manufacturer for the same before the entire installation is taken over.

**23. Liaisoning and Co-operation with other agencies:**

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the operation and maintenance of the building so as to make the execution of this works contract smooth. If any unreasonable hindrance is caused to other agencies / damage is caused to the existing installation resulting in loss of work or disruption in services during the course of work, such expenditure incurred upon restoration and loss of work shall be recovered from the successful tenderer. Water proofing of pits shall not be damaged under any circumstances.

24. All the debris due to the works shall be cleared every now and then and site shall be kept clean by the contractor at all times.
25. The contractor or his authorized representative will have to sign the site order book and comply with the remarks therein every now and then.
26. Contractor has to follow the local security/safety rules and regulations and such instructions on restricted hours of work as may be imposed on him by the department / local authorities, while working in security/restricted zones, and no claim on account of the loss of labor/ idle labor will be entertained.
27. All repairs and patch work shall be neatly carried out to match with the original finish by the contractor to the entire satisfaction of the Engineer -in-Charge.
28. The agency has to obtain approval of the department/Engineer-in-Charge to the drawings & more subsequent changes, additions, deviations etc. as required



without extra charge.

29. No quantity deviation is permitted without written approval of the competent authority. Permissible deviation shall be sanctioned by the competent authority as per the agreement. Deviation beyond permissible limits shall be sanctioned by the competent authority as per the prevailing Local Market Rates only and the decision of the department is final and binding on the contractor.
30. The quantities given in schedule of work for all the items are tentative. The work shall be carried out as per actual requirement and as approved by the Engineer -in – Charge.
31. All statutory / Mandatory recoveries enforce and as notified by competent authority from time to time shall be recovered from the bills of the agency.
32. Contractor should submit completion plan and certificate along with final bill, failing which 2.5% of value of work, subject to a ceiling of Rs. 15,000/- will be deducted from the bills or the final bill shall not be paid. Decision of Engineer-in-charge shall be final and binding in this regard. However, the completion plan is not necessary for maintenance contractors and this recovery condition shall not be applicable.
33. The Contractor has to make his own arrangement for the safety of his workman. Department shall not be responsible in case of any accident taking place during the work.
34. All the staff engaged by the contractor shall be purely his liability and the department in no way shall be responsible for any compensation for any of their acts/ accidents. In case any accident occurs during the execution of the work leading to injuries, damages to human being equipment and or loss of life, the contractor shall be fully responsible for setting all claims and indemnity the department against any claims arising out of such accident.
35. **CPWD - 6, CPWD-7 including schedule A to F for the major component of the work, Standard General Conditions of Contract for CPWD 2020 amended / modified upto**



last date of receipt of tender or latest edition as applicable with all amendments / modifications up to last date of receipt of tender.

**LOCATION / SITE DETAILS**

- 1 Address of site IIT Indore
- 2 Location Simrol, Indore (Madhya Pradesh.)
3. Latitude - 22.52°N,  
Longitude - 75.92°E

**CONTRACTORS ARE ADVISED TO VISIT THE SITE BEFORE QUOTING THE RATES. OTHERWISE IT WILL BE ASSUMED THAT THE PARTY HAS ALREADY VISITED THE SITE BEFORE QUOTING THE TENDER. AN UNDERTAKING SHOULD BE FURNISHED IN ACCORDANCE WITH ANNEXURE ENCLOSED.**

➤ **Requirements to be fulfilled by agency/contractor:**

- A. Provision of trained personnel at site for Monitoring & Running of the installed STP.
- B. Liability of satisfactory operation of the installed STP as per the concerned Pollution Control Board Authorities.
- C. Personal protective equipment like safety shoes, goggles, dress will be in contractor scope.
- D. Provide necessary arrangements to tackle storm water and lifting of sludge.
- E. The Cost of Chemicals, Greasing and Varnishing of various equipment's needed for plant operation.
- F. Regular preventive maintenance of the Capital electromechanically equipment's as pumps, Valves, Plants etc. and take corrective action whenever required for the smooth operation of STP.
- G. All the parameters of treated wastewater shall be well within state pollution control board norms at any time.
- H. V –Belt for blower and other consumables like chlorine and other chemicals oil, and grease etc need to be provided by agency.
- I. Contractor has to operate and maintain the peripheral effluent line laid across the



campus for adequate supply of treated water

J. Sludge disposal including trolley for sludge disposal.

All required chemicals like testing kits and lab chemicals for smooth operation of the plant

- Register showing the timings of operation of each plant machinery, all sewage and sludge pump-sets, aeration motors, backwashing of filters, submersible mixers, internal recycling pump-sets, chemical metering pump-sets, disinfection pump-sets, etc;
- Separate registers showing the works done on preventive maintenance for each equipment should be maintained.
- A separate register showing details of each occurrence of all break downs of equipments, date and time of occurrence of break down, reasons for break down, action taken to set right and date and time of restoration of the equipment back to normal working shall be maintained by the contractor. An attendance register shall be maintained where in all personnel working in each shift shall sign.
- A separate register shall be maintained in which the daily consumption of each chemical used for treatment and disinfection of the waste water shall be recorded correctly showing the KG of each chemical used or liters of chemical solution used.
- Other registers required to be maintained as stipulated by the central Government Regulations with regard to the labour regulations, payment of EPF, ESI, safety of workmen, accidents register etc shall also be maintained by the contractor
- Mandatory regulations prescribed by the Government shall be followed by the contractor regarding labour and safety clauses which are already furnished in the tender, without any lapse, including those conditions , amended by these departments periodically.
- The contractor should provide uniforms and identification badges to all the staff, and they should wear during working hours.
- The contractor should ensure the treated effluent quality always conforms to the standard prescribed in the tender and as per standards / guidelines of MPPCB or central Govt bodies.
- Tools and tackles for the operation and maintenance should be provided by the Contractor.
- If require equipment, tools supplied by the IITI If any, should be kept in good working





condition and these should not be taken out of the premises without the written permission of the Engineer - in - charge.

- Contractor shall provide a Notice board detailing precautions to be taken by operation personnel in work conformity with labour regulations.
- The materials should be properly stocked for easy verification and easily accessible

**Preventive Maintenance Schedules and its deliverables:**

i) Cleaning of all tanks , checking of all valves, checking all lines laid in the campus, etc as per engineer in charge will be done every three month and for all electrical motors, pumps, related minor works taken care by the agency every month shall be subjected to preventive maintenance and. this a Computerized Planned Preventive Maintenance Schedule shall be got prepared by the Contractor and got approved by the Engineer-in-charge IIT Indore or the consultant of IIT Indore which shall be systematically practiced and implemented by the Contractor. All such preventive maintenance schedules carried out shall be entered in the computer file and also hard copies shall be submitted to the engineer-in-charge every month. A list of chemicals used per day and total chemicals used per month shall be supplied to the Engineer-in-charge IIT INDORE in the form of a spread sheet statement and the data recorded in a computer file.

Any Major work/Specialised electrical related taken care by the Maintenance team electrical.

ii) A statement showing all the actual hours of working of all electrical motors and the energy consumed for each motor and the total energy consumed per month shall be supplied to the Engineer-in-charge IIT INDORE.

iii) A monthly spread sheet statement shall be submitted by the contractor showing the daily quantum of treated water supplied per day from the Sewage Treatment Plant to the Land. This data shall also be stored in the computer file. The contractor shall take prior approval of Engineer-in-charge in writing for providing any damaged spare part for any equipment. An inventory of preventive maintenance and breakdown maintenance works carried out which necessitated changing of spare parts for any equipment shall be supplied





every month by the contractor to the engineer-in-charge.

iv) All necessary materials for the smooth operation of the plant and carrying out all maintenance works shall be provided by the contractor. At no time the running of plant or other works such as cleaning, lubrication, lighting etc., should be hampered for want of materials.

The contractor shall also submit fortnightly test report from approved laboratory for parameters of concerned to confirm the performance of STP in accordance to the tender.

19 The contractor shall be responsible for the watch and ward/guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

20 The contractor shall render all help and assistance in documenting the total sequence of this project by way of photography, slides, audio-video recording etc. Nothing extra shall be payable to the contractor on this account. However, cost of photographs, slides, audio/videography etc. shall be borne by the department.

21 The contractor shall be fully responsible for the safe custody of materials brought by him issued to him even though the materials are under double lock key system.

22 No payment shall be made to the contractor for any damage caused by rain, snowfall; floods, earthquake or any other natural causes whatsoever during execution of work. The damage of the work will be made good by the contractor at his own cost and no claim on this account shall be entertained.

23 The contractor must follow all safety norms as laid down in National Building Code of India. All the workers shall be equipped with the required safety gadgets while working at site such as ISI marked helmets, Shoes and safety belts, gumboots, gloves etc



**PROFARMA OF SCHEDULES**

**SCHEDULE 'A'**

Schedule of quantities (Enclosed)

**SCHEDULE 'B'**

Schedule of materials to be issued to the contractor.

S.No.	Description of item	Quantity	Place of Issue	
			Rates in figures & words at which the Material will be charged to the contractor.	
1	2	3	4	5

----- NIL -----

**SCHEDULE 'C'**

Tools and plants to be hired to the contractor.

Sl. No.	Description	Hire charges per day	Place of Issue
1	2	3	4
NIL			

**SCHEDULE 'D'**

Extra schedule for specific requirements/documents for the work, if any. As enclosed

**SCHEDULE 'E'**

Reference to General Conditions of contract

General Conditions of Contract for Maintenance  
Works 2020 as amended upto date i.e.



DG/CON/-Maint/2020/338 dated 13/04/2023

**Estimated cost of work**

Civil : ₹ 35, 50,000/-

- (i) Earnest money: ₹ 71,000 (To be returned after receiving Performance Guarantee)
- (ii) Performance guarantee: 5% of tendered value
- (iii) Security Deposit: 2.5% of tendered Value

**SCHEDULE 'F'**

**General Rules & Directions:**

- Officer inviting tender - Maintenance in Charge, IIT Indore.
- Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3. NA
- Definitions:
- 2(v) Engineer-in-Charge Maintenance in Charge, IIT Indore.
- 2(viii) Accepting Authority Maintenance in Charge, IIT Indore
- 2(x) Percentage on cost of materials and labour to cover all overheads and profits. As per tender condition D on page no.47
- 2(xi) Standard schedule of Rates  
For Civil :- Minimum Wages Rates Oct. 2023 & OEM's authorized Service Partner quotations.
- 2(xii) Department IIT INDORE
- 9(ii) Standard CPWD contract Form GCC 2019, CPWD DG/CON/-Maint/2020/338 dated 13/04/2023 Form 7/ 8 as modified & corrected upto



- Clause 1** Time allowed for submission of performance guarantee from the date of issue of letter of acceptance : 7 DAYS
- Maximum allowable extension with late fee @ 0.10% per day of performance guarantee amount beyond the period as provided in (i) above : 7 DAYS
- Clause 2** Authority for fixing compensation under clause 2 : MIC,IIT indore
- Clause 2A** Whether clause 2A shall be applicable NA
- Clause 5** No. of days from the date of issue of letter of acceptance for reckoning date of start 8 Days

**Milestone(s) : - As per Table given below**

**Table of milestone(s)**

S No	Description of Milestone (Physical)	Time allowed (From date of start)	Amount to be withheld in case of non-achievement of milestone as assessed from the running payments
	.....N.A.....		

- Time allowed for execution of work **365 days.**
- Authority to decide.
- (i) Extension of Time Dean IDO, IIT Indore.
- (ii) Rescheduling of milestones NA
- (iii) Shifting of date of start in case of delay in handing over of site. Maintenance-In-Charge, IIT Indore

**Clause 6, 6A Clause** applicable **6A**

- Clause 7** Gross work to be done together with net payment/adjustment of advances for material collected, if any since the last **Rs.35,50,000/- for AMC STP**



such payment for being eligible to interim.  
payment

**Clause7A** Weather clause 7 A shall be applicable **Yes**

**Clause10A** List of testing equipment to be provided by the contractor at site lab. **Yes**

**Clause10B(ii)** Whether clause 10B (ii) shall be applicable **Yes**

**Clause10C** Component of labour expressed as Percent of value of work **N/A**

**Clause10CA** **N.A.**

Material covered under this clause	Nearest materials (Other than cement, reinforcement bars and structural steel) for which All India Whole Sale Price followed.	Base Price of all materials covered under clause 10 CA *
	<b>DELETE</b>	
1 Cement	NA	1. /- Per MT
2 Steel reinforcement	NA	2. /- Per MT
3 Structural steel	NA	3. /- Per MT

**Clause10CC** Clause 10CC to be applicable in contracts with stipulated period of compensation exceeding the period shown in next column : Deleted

**Clause 11** Specifications to be followed for execution of work : CPWD General specification amended upto date

**Clause 12**

12.2 & 12.3 Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building work (Other than foundation) 30%

Deviation limit beyond which clauses 12.2 & 12.3 shall apply for foundation work 100%



**Clause 16** Competent Authority for deciding reduced rates.

DOID, IIT Indore

**Clause 18** List of mandatory machines, tools and plants to be deployed by the contractor at site. **As required by Engineer in charge**

Clause 19C ..... authority to decide penalty for each default

Clause 19D ..... authority to decide penalty for each default

Clause 19G ..... authority to decide penalty for each default

Clause 19K ..... authority to decide penalty for each default

**Clause 25** Any litigation in court shall be filed within Indore only.

Constitution of Dispute Redressal Committee (DRC)  
Chairman - .....DOID, IIT Indore  
Member - ..... MIC, IIT Indore  
Member - .....ARID, IIT Indore

**Clause 32: Applicable**

**“Requirement of Technical Representative(s) and Recovery Rate**

SNo	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical / Technical representative)	Minimum experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 36(i)	
						Figures	Words
	As above	As above	As above	As above	As above	As above	As above

“Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.”

Requirement of technical staff and their experience can be varied depending upon nature of work by NIT approving authority with recorded reasons.

**RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION**



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*Indian Institute of Technology Indore*

*Infrastructure  
Development  
Office*

Sl No.	Description of item	Rates in figures and words at which Recovery shall be made from the Contractor	
		Excess beyond Permissible variation	Less use beyond the permissible variation
1.	Cement	N.A.	
2.	Steel Reinforcement	N.A.	





**Scope /Technical Specifications / Detailed description for schedule of works**

- **Scope:** Operation & Maintenance of 650 KLD capacity Sewerage Treatment Plant.
- **Capacity:** 650 KLD STP
- **Type of water to be treated:**

The influent is the product of the wastewaters from different activities such as:

- i) Soil and wastewater that comes from the toilets and bathroom faucets, baths, and showers etc.
- ii) Oil, grease and food waste from kitchens & pantries etc.

➤ **Details of Each Module**

1. Daily Flow : 650Cum /day
2. Duration of flow to STP : 24 hours
3. Annual mean Max. temp. : Max. 41.2OC
4. pH : 7.15 to 8.2
5. Colour : Mild
6. Total suspended solids (mg/l) : 250 to 350
7. BOD (mg/l) : 200 to 250
8. COD (mg/l) : 300 to 400
9. Oil & Grease : 10 - 50 mg/lit.

➤ **Desired limit of Treated Effluent Characteristics after Secondary treatment**

- a) pH : 7.2 to 7.8
- b) Total suspended solids : 15 to 30 mg/l
- c) BOD : 20 to 30 mg/l
- d) COD : 20 to 40 mg/l
- e) Oil & Grease : < 10 mg/l
- f) Phosphate (PO<sub>4</sub>) : <1 mg/l
- g) Ammonical Nitrogen (NH<sub>3</sub>-N) : <1 mg/l
- h) Nitrate Nitrogen (NO<sub>3</sub>-N) : <10 mg/l
- i) E-Coli : Nil.
- j) Turbidity : <2 NTU

➤ **Desired limit of Effluent Characteristics after Tertiary Treatment**

1. pH : 7.1 to 7.3
2. Total suspended solids : < 5mg/l
3. BOD : <10 mg/l
4. COD : <20 mg/l
5. Oil & Grease : Not Detectable
6. Colour & odour : Not Detectable





7. Phosphate (PO<sub>4</sub>) : <1 mg/l
8. Ammonical Nitrogen (NH<sub>3</sub>-N) : <1
9. Nitrate Nitrogen (NO<sub>3</sub>-N) : <10
10. E-Coli : Nil
11. Turbidity : <2 NTU
12. Total Hardness (From Softener only) : <5 mg/lit of CaCO<sub>3</sub>

➤ **Treatment Process:**

The treatment process is aimed to convert the influent quality as mentioned above, into the required quality standards so that the treated effluent can be re-used for nonportable use specified above. It is proposed to perform the treatment of the effluent by the biological aerobic process. The process is designed to induce the growth of bacteria, which by physical and physio-chemical action retain the organic pollution and live on it. This growth is obtained by putting a bacterial culture disposal as a flock in the aeration tank.

**To have an efficient treatment system, this aeration system is proposed consisting of Moving Bed Bio- Reactor Tank (MBBR).**

➤ **Process Description**

- Incoming Wastewater from Last Manhole will be collected in raw effluent collection sump via a Sluice Control Valve; bar Screens & Grit Chamber in series.
- Manual cleaned bar screens will be installed to screen any large pieces. After screening, the waste water should be allowed to pass through a grit chamber to remove the grit material. The screens and grit chambers shall be accessible so that they may be manually cleaned from time to time.
- The waste water from the Grit chamber should then pass into the Collection Chamber / Common Collection Sump, from where the sewerage shall be pumped into the Equalization Tank. This collection sump shall act as common for the multiple modules.
- The design of Equalization tank should cater for the condition that the waste water generation may not be uniform and higher quantity may come out during peak hours. There may be very low flow condition for few hours. To optimize the size of the plant, the plant design should cater for continuous operation and hence a buffer should be provided to store the waste water during its peak hour generation and supply the same during lean or no flow hours. The equalization tank is provided to homogenize the waste water quality and also even out flow fluctuations and feed waste water of uniform quality at constant rate to subsequent treatment units. Air mixing should be provided to mix the contents of the equalization tank. An aeration grid should be provided to mix the contents of the equalization tank and also to avoid septic conditions in the tank. From the equalization tank the wastewater will be pumped into MBBR Tank on a controlled rate. By-pass line shall be provided from the pumping



system which shall only be provisional for disposal of sewage to mobile sewage tanker for emergency purposes.

- The MBBR process uses small plastic carrier elements to provide growth sites for bacteria attachment in a suspended growth medium. The carrier elements shall allow a higher biomass concentration to be maintained in the reactor. This shall increase the biological treatment capacity for the given reactor volume.
- The carrier elements shall be continuously kept in suspension by the aeration system. The agitation pattern in the reactor shall be designed to provide an upward movement of the carriers across the surface of the retention screen which creates a scrubbing effect to prevent clogging. Combination of fine & coarse bubbles may be provided to provide oxygen as per detailing.
- From the MBBR tank mixed liquor shall flow by gravity into the Secondary Clarifier. The solids will settle in the clarifier tank. The sludge that settles down shall be transferred to sludge holding tank via sludge loading pumps, with provision of sludge return to the bioreactor if necessary.
- From the clarifier tank, treated wastewater will flow into chlorine contact tank/clarified water tank. In this tank calcium or sodium hypochlorite solution will be added by a suitable Dosing system comprising dosing tank and dosing pumps (1W+1S)
- Treated water after chlorine contact tank shall be clear, odourless, low BOD, low suspended solids, which shall be of quality which is acceptable as per standards prescribed by CPCB/Environmental norms for disposal directly into natural drain. However the treated water will not be discharged into natural drain but reused as indicate in relevant clauses. Respectively provided at each location ie. before clarified water tank and also before flushing water tank.
- The treated water from chlorine contact tank is fed by means of filter feed pump sets to pass through dual media filters, activated carbon filters and stored in the filtered water tanks. The activated carbon filters shall ensure removal of all coloration and odours present in the treated effluent. Backwash of Filters shall be done intermittently as per requirements. The filtered water being stored in the filtered water tank shall again be dosed with sodium hypochloride by suitable dosing system and a residual Chlorine level of 1 PPM shall be maintained.
- The filtered, clean and odourless water from filtered water tank is then fed through a variable frequency drive hydro-pneumatic system to the external treated effluent rings as per the master plan, from where connections are taken to the garden hydrant system and to each unit for flushing water as per detailing.



➤ **Testing and monitoring system**

- The scope of work includes establishing fully equipped in-house Testing Laboratory at the STP so as to perform regular testing and monitoring of the quality of the incoming raw sewage effluent, as well as the treated effluent from the various operation units / stages / main components of the sewage treatment plant. The monitoring system shall ensure that a strict vigilance may be kept on the functioning of the plant and to enable smooth operation of the plant.
- The below mentioned parameters reports should be available with the agency as and when asked by the IITI. The data should be certified by the govt. agency.

**1. Parameters to be monitored**

➤ Physical:

- A. pH
- B. Colour & Odour (Indicative only)
- C. Turbidity
- D. Total Suspended Solids

➤ Chemical

- A. Chemical Oxygen Demand
- B. Oil & Grease
- C. MLSS
- D. MLVSS
- E. F/M Ratio

➤ Biological:

- A. Biochemical Oxygen Demand

➤ Microbiological:

- A. Coliform
- B. Coli
- C. Total Plate Count
- D. Faecal Coliforms



Sl. No.	Parameter	Periodicity
1	PH of feed	Field test daily as required. (All apparatus, testing chemicals & testing at contractor's cost)
2	PH of permeate	
3	Dissolved oxygen	
4	MLSS	
5	Odour	
6	Temperature	
7	Turbidity	
	<b><u>Permeate to be Tested in Government certified Lab</u></b>	
1	pH	At least once in a month (All sampling & testing charges at contractor's cost – To be tested at Govt. Certified lab) <b>at expenditures within the quoted rates</b>
2	Total suspended solids	
3	Total dissolved solids	
4	Oil & Grease	
5	Chemical oxygen demand	
6	BOD5@20 deg. C or BOD3@27 deg. C	
7	Fecal Coliform	
8	Turbidity	
9	Temperature	
10	Odour	

➤ **Chemicals required :**

Following is an indicative list of the different type of chemicals / consumables required and are not exhaustive. Contractor shall provide all necessary chemicals/consumables required for operating and maintaining the STP efficiently. He shall maintain stock register of all chemicals/consumables and up-date the same on daily basis.

- a) Sulfuric Acid
- b) Hydrochloric Acid
- c) Petroleum Ether
- d) Sodium Hydroxide
- e) Potassium Hydroxide
- f) Potassium Dichromate
- g) Glucose and Glutamic Acid
- h) Magnesium Sulphate
- i) Sodium Iodide
- j) Potassium Iodide
- k) Mercuric Sulfate
- l) Ferrous Ammonium Sulphate
- m) Silver Sulphate
- n) Potassium Hydrogen Phthalate
- o) Sulphonilic
- p) Sodium Sulphate Anhydrous
- q) Trichlorotrifluoroethane



- r) Sodium Azide
- s) Starch
- t) Salicylic Acid
- u) Potassium Bi-iodate
- v) Sodium Thiosulphate
- w) pH buffer Solution
- x) Chlorine
- y) Polymer
- z) Distilled water

**INDICATIVE /TENTATIVE Work chart for maintaining the STP**

Sr.no	Name of tank	Work details	Frequency of work	Work details
1	Main Collection Tank	<ol style="list-style-type: none"><li>1. Cleaning of screens, sidewalls, removal of oil and grease.</li><li>2. Removal of solid waste materials</li><li>3. Cleaning the side area around the tanks</li></ol>	Daily	
2	Equalizer Tank	<ol style="list-style-type: none"><li>1. Cleaning the tank and side wall</li><li>2. Removing the waste</li><li>3. Maintaining the wastewater level for proper functioning of STP</li></ol>	Daily	
3	Aeration/Biological Tank	<ol style="list-style-type: none"><li>1. Checking and operating the blower</li><li>2. Maintaining the MBBR for proper functioning</li><li>3. Maintaining the level of waster water</li></ol>	Daily	



		<b>4. Removal of foam</b>		
<b>4</b>	<b>Secondary clarifier tank</b>	<ol style="list-style-type: none"> <li>1. Cleaning the side walls</li> <li>2. Operating the pump for agitation</li> <li>3. Removal of sludge</li> <li>4. Removal of foam</li> </ol>	<b>Daily</b>	
<b>5</b>	<b>Filters</b>	<ol style="list-style-type: none"> <li>1. Backwashing and pressure checking etc</li> </ol>	<b>Weekly</b>	
<b>6</b>	<b>Pumps and motors</b>	<ol style="list-style-type: none"> <li>1. Operation from time to time as per requirement</li> </ol>	<b>Daily</b>	
<b>7</b>	<b>Valve and its maintenance</b>	<ol style="list-style-type: none"> <li>1. Operation and its maintenance</li> </ol>	<b>Daily</b>	
<b>8</b>	<b>Removal of sludge</b>	<ol style="list-style-type: none"> <li>1. Time to time</li> </ol>	<b>weekly</b>	
<b>9</b>	<b>Record keeping of Consumables</b>	<ol style="list-style-type: none"> <li>1. Time to time</li> </ol>	<b>Daily</b>	
<b>10</b>	<b>Records keeping of running status of electrical motors, pumps etc</b>	<ol style="list-style-type: none"> <li>1. Time to time</li> </ol>	<b>Daily</b>	

- All treated pipelines and wastewater lines should be maintained by an agency. Regular surveillance should be done to avoid any water loss from the treated pipeline along the campus peripheral roads.
- Other details are attached

<b>STP Motor/PUMP Details</b>			
<b>Sr. no.</b>	<b>Make of Motor/PUMP</b>	<b>Rating</b>	<b>Quantity</b>
<b>1</b>	<b>Grundfos</b>	<b>5.5 KW</b>	<b>4</b>
<b>2</b>	<b>KSB</b>	<b>4HP</b>	<b>3</b>
<b>3</b>	<b>KSB</b>	<b>10 HP</b>	<b>3</b>
<b>4</b>	<b>Bharat Bijlee</b>	<b>0.5 HP</b>	<b>5</b>
<b>5</b>	<b>Siemens</b>	<b>0.5 HP</b>	<b>2</b>
<b>6</b>	<b>Siemens</b>	<b>20 HP</b>	<b>3</b>
<b>7</b>	<b>Kirloskar</b>	<b>3 HP</b>	<b>2</b>



8	Siemens	1.5 HP	2
9	ABB	7.5 HP	1
10	Sump Pump	5 HP	9
11	Siemens	10 HP	4
12	Siemens	5 HP	2
13	Star Delta Starter	10 HP	10
14	DOL starter	3.7KW	40
15	Main I/C Panel	630 Amp	1
16	KSB motor panel		1
17	KSB motor panel		1
18	Ventilation Fan		2

Sr no	Pump / Motor	Total Running Hours/Month
1	Collection Tanks Pumps	
2	Equalization pump	
3	Sludge Recirculation pump	
4	Filter feed pump	
5	Cricket Pump	
6	Flushing Pumps	
7	Backwash Pumps	
8	Air Blower	
9	Chlorine Dosing pump	
10	Clarifier Pump/ motor	
11	Poly Pump	
12	Decanter motor	
13	Sludge pump	
14	PIT pump	



**CHECKLIST TO ACOMPANY THE TENDER**

Sl. No.	Document to be Submitted	Description to be given	Scanned documents/ photocopy to be Submitted	Column 5
(1)	(2)	(3)	(4)	(5)
1.	Name and address of the contractor Name of the authorized person of the firm/company with authorization certificate on firm/company letterhead.	Copy of Certificate	Yes/No Yes / No	
2.a)	Contractors registration under appropriate class (Grade 'A') with Govt./PSU Partnership deed in case	Registration	Yes / No	
b)	of firms & Article of Association in case of companies			
3.	Valid 'A' class Civil Contractor Govt.	Copy of Certificate	Yes/No	
4.	Valid Labor License from Govt. of M.P. Central	Copy of Certificate	Yes/No	
5.	Copy of Permanent Account Number (PAN) card and copy of current 03 years latest Income Tax returns submitted along with proof of receipt.	PAN & IT Returns	Yes / No	





6.	Work completion certificates in support of annual turnover in <b>Civil</b> Engineering works (Format at Statement-I)	Annual turnover	Yes / No	
7.	Work completion certificates(Govt. Deptt.) in support of satisfactory completion of similar works along with purchase/work orders (Format at Statement- II)	Similar work	Yes / No	
8.	Statement of existing commitments and ongoing Govt. /PSU works along with supporting experience certificates as in (Format at Statement – III)	Existing commitments	Yes / No	
9.	Availability of equipment as in ( Format at Statement – IV)	Equipment	Yes / No	
10.	Availability of key personnel as in ( Format at Statement – V)	Key personnel	Yes / No	
11.	Information of litigation history as in ( Format at Statement – VI)	Litigation history	Yes / No	
12.	Credit facilities/solvency certificates from banks	Credit facilities	Yes / No	
13.	E.M.D. Receipt	EMD Receipt	Yes / No	
14.	GST Registration with number	GST Registration	Yes / No	

All experience certificates including those in support of existing commitments issued by an Officer not below the rank of Executive Engineer (or) Equivalent grade.



All the statements copy of the certificates, documents etc., enclosed to the technical bid shall be given page numbers on the right corner of each certificate, which shall be indicated in column (5) against each item.

# METHODS OF OPERATIONAL CHECKS FOR STP

### D-1 CODE AND METHOD OF CHECKING

<i>Sl No</i>	<i>Code</i>	<i>Method</i>	<i>How to Check</i>
(1)	(2)	(3)	(4)
i)	V	Visual	Check for presence (or absence) of the indicated feature
ii)	M	Measurement	Measure the indicated dimensions and compare against specified limits
iii)	T	Performance test	Conduct a test and compare the results against the specified limits
iv)	D	Documentation check	Check in drawings and calculations (typically for aspects that cannot be checked with visual inspection or other testing methods)

### D-2 BAR SCREEN CHAMBER

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Working on platform	a) Observe the operator as he collects debris b) Posture is normal during working c) Does not have to balance on platform d) Can see the whole chamber easily e) Not facing any difficulty f) Can easily reach the grill and floor g) No struggle to remove parts stuck in grill	T	If the debris-collection is not comfortable, it will stop in a few days; leading to a clogged and dysfunctional bar screen chamber
ii)	Handling of debris	a) Observe the operator as he disposes off debris b) Operator can easily use the platform (or a basket) to let the debris drip dry c) Operator can easily place the collected debris into a garbage bag	T	Disposal of debris shall be easy and hygienic

### D-3 EQUALIZATION TANK

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Actual level fluctuations	Check for overflows – tell-tale colouration on side walls/freeboard	M	To determine if equalization tank size is adequate to handle peak inflows

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
ii)	Aeration and mixing	a) Bubbles rise across the entire surface of the aeration tank (no dead zone in any area, especially edges and corners) b) There is no odour c) There is no localized violent bubbling/ boiling	V	This is the end-result of proper diffuser selection and placement; and also correct air pressure
iii)	Maintenance of diffusers	Select a few diffusers (typically the diffuser in the most remote corner) and execute a mock repair cycle and check for the following: a) Easy to isolate from the rest of the system. b) Easy to retrieve the chosen element. c) Easy to dismantle the element without disturbing the other plumbing. d) Easy to clean the element. e) Easy to lower it back at the exact spot.		

#### D-4 RAW SEWAGE LIFT PUMPS TANK

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Easily accessible	Simulate a repair cycle on the pump that is more difficult to access and check the following: a) Easy to isolate from the rest of the system b) Easy to dismantle c) The rest of the plumbing is not disturbed d) Easy to carry it outside its area e) Easy to place it back and assemble it	V	The STP should allow easy maintenance of pumps without significant interruption of its process

#### D-5 AERATION TANK

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Baffle wall function	a) The sewage is let into the baffle zone – No splash or overflow b) There is no bubble-free dead zone adjacent to the baffle wall on the tank	V	These signs indicate wrong dimensions of the baffle wall
ii)	Diffuser function	a) Bubbles rise uniformly across the surface b) No dead zone (especially near walls and corners) c) No large bubbles bursting through		

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
iii)	Maintenance of diffusers	Simulate a service cycle on sample diffusers (select the most remote elements) and check for the following: a) Easy to isolate from the rest of the system b) Easy to retrieve the chosen element c) Easy to dismantle the element without disturbing the other plumbing. d) Easy to clean the element e) Easy to lower it back at the exact spot	T	Maintenance of diffusers should not disrupt the STP functioning
iv)	Membrane type diffuser	Pull out and check if membranes are in good condition	V	—
v)	Split aeration tank	Easy to isolate and empty each tank for repairs a) Cut off compressed air (Check safety function) b) Equal flow of sewage and recycle sludge to each compartment	V	—
vi)	Biomass in Aeration tank	a) Healthy brown biomass b) Check MLSS level in aeration tank	V T	— —

#### D-6 SECONDARY CLARIFIER TANK

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Settling of sludge	a) Sludge settles without vortex b) No sludge drawn up near the weir c) No significant sludge trace in the launders d) No clumps/ balls of rising sludge	V	—
ii)	Fine mesh basket at outlet	Easy to service the mesh, for which check the following: a) Easy to remove b) Easy to clean c) Easy to fit it in place	T	—
iii)	Bridge	a) Bridge allows safe travel up to motor and gear box b) The safety railing has closely spaced balusters to prevent accidental fall from under the railing	T	—
iv)	Maintenance of motor and gearbox	Simulate a repair cycle for the motor and gearbox a) Safe access to the motor and gearbox b) Allows safe removal of motor and gearbox c) Allows safe carrying of parts out of tank d) Allows safe re-fitting of parts e) Check rotational speed of rake	M	If the motor and gear box T cannot be made functional within 30 min, the bacteria may start dying

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1) v)	(2) Weir level	(3) Check for uniform overflow of water over the entire length of the weir(s)	(4) T	(5) —

#### D-7 SLUDGE RECIRCULATION PUMPS — AIRLIFT

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Air lift	Check if recirculation sludge flow is roughly between 60 and 100 percent of sewage inflow	V	—

#### D-8 SLUDGE RECIRCULATION PUMPS — ELECTRIC

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Air lift	Check if recirculation sludge flow is roughly between 60 and 100 percent of sewage inflow	V	—

NOTE — Based on the STP design, select the previous table (for an airlift pump) or this table (for electric pumps used in direct- suction or buffer sump variations).

#### D-9 SLUDGE RECIRCULATION SYSTEM — WITH A BUFFER SUMP

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Aeration and mixing in sludge sump	a) Bubbles rise across the entire surface (no dead zone in any area, especially edges and corners) b) There is no odour	V	This means the system does not pose a threat to the bacteria
ii)	Maintenance of pump	Simulate a repair cycle (select the pump that is more difficult to access) and check for the following: a) Easy to cut off from the rest of the system b) Easy to remove c) Easy to carry outside STP d) Easy to assemble back. e) Check if recirculation sludge flow is roughly between 60 and 100 percent of sewage inflow		
			T	Although availability of a standby drastically reduces the risk, it should be easy (and fast) to repair a defective pump

#### D-10 CLARIFIED WATER TANK

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
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(1)	(2)	(3)	(4)	(5)
i)	Aeration and mixing	a) Bubbles rise across the entire surface (no dead zone in any area, especially edges and corners) b) There is no odour c) No accumulation of solids in the tank	V	—

#### D-11 FILTER FEED PUMPS

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Maintenance of pump	Simulate a repair cycle (select the pump that is more difficult to access) and check the following: a) Easy to cut off from the rest of the system b) Easy to remove c) Easy to carry outside STP d) Easy to assemble back	T	—

#### D-12 BACKWASH PUMPS

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Maintenance of pump	Simulate a repair cycle (select the pump that is more difficult to access) and check the following: a) Easy to cut off from the rest of the system b) Easy to remove c) Easy to carry outside STP d) Easy to assemble back	T	—

NOTE — This table is applicable only when the design uses a separate set of pumps for backwash (not by reversing the flow of the filter-feed pumps)

#### D-13 PRESSURE SAND FILTER

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Filter operation	Filter is able to handle design flow of water without excessive pressure drop	T	—
ii)	Filter Backwash	Backwash filter for 5-10 min and check if initially lot of solids come out, gradually becoming clearer and finally clear water is observed	T	—

#### D-14 ACTIVATED CARBON FILTER

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Filter operation			
ii)	Filter Backwash			

Get analysis reports and compare quality at inlet to filter and T \_\_\_ outlet of filter

Backwash filter for 5 min and check if initially lot of solids T  
come out, gradually becoming clearer and finally clear water is — observed



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**D-15 DISINFECTION SYSTEM**

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Hypo dosing	Check residual chlorine level with test kit It shall be more than after 30 min of standing	— 1 ppm	T

**D-16 SLUDGE-HANDLING SYSTEM**

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Filter press operation	Run an entire sludge dewatering cycle of one batch, and check quantity (weight) of sludge cake produced	T	—

**D-17 AIR BLOWERS**

<i>Sl No</i>	<i>Check</i>	<i>Acceptance Criteria</i>	<i>Method</i>	<i>Rationale</i>
(1)	(2)	(3)	(4)	(5)
i)	Noise	Measure the noise. Results more than 80 dB(A) indicate corrective measures are needed	—	T
ii)	Capacity	Check if air in sufficient quantity is delivered to all connected tanks simultaneously, as visual indications for each tank as described above	T	—



Financial Bid

<b>Name of Work: Operation &amp; Maintenance of 650 KLD capacity Sewerage Treatment Plant (STP) at IIT Indore.</b>			
<b>Sr.no</b>	<b>Description of Item</b>	<b>Quantity</b>	<b>Unit</b>
	<b>Civil Works</b>		
1	Annual Contract for Operation & Maintenance of 650 KLD capacities Sewerage Treatment Plant (STP) at IIT Indore as per specifications, terms, conditions laid down in tender document.	1unit	Unit