

UJJAIN SMART CITY LIMITED

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Ujjain, Madhya Pradesh – 456010
E-mail: ujjainsmartcity@gmail.com

Website: <https://ujjainsmartcity.com/en/about-uscl/>

NIT No. USCL/401 Tender ID: 2025_UAD_455504_1 Ujjain Date: 01/10/2025

Ujjain Smart City Limited (USCL) invites online bids from eligible bidders for **“Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance at Ujjain.”** as per details given below:

S.No.	Particulars	Details
1	Name of Work and Site	<i>Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance at Ujjain</i>
2	Cost of Tender Document / Bid submission Fee	Rs 5,000/-
3	Earnest Money Deposit (EMD) / Bid Security	Rs 49,201/- to be paid online
4	Probable amount of contract	Rs 24,60,076.40 (excluding applicable GST)
5	Purchase of Tender Date	01/10/2025
6	Pre-bid Meeting	08/10/2025 15:00 Hrs
7	Purchase of Tender End Date	15/10/2025 upto 17:00 hrs
8	Financial and Technical Bid Submission End Date (Online)	15/10/2025 upto 17:00 hrs
9	Technical Bid Submission End Date (Physical Only)	Not Applicable
10	Technical Bid opening	16/10/2023 on/after 17:00 hrs
11	Financial Bid opening	To be notified
12	Completion Period	3 Months (Including intervening rainy seasons)
13	Validity period of Bids	120 Days after Last date of Submission
14	Mode of selection of Contractor	Open Tender by e-tendering mode. Lowest Quoting Bidder (L1 bidder) to be selected.

Note: In case of any mismatch in key dates, key dates showing on e-portal shall be final. For more details, please refer to e-procurement website: www.mptenders.gov.in. Corrigendum or amendments, if any, shall be uploaded on this website only.

UJJAIN SMART CITY LIMITED (USCL)

MADHYA PRADESH

APPENDIX 2.10

TENDER DOCUMENT

Office of the : *Ujjain Smart City Limited*

NIT Number and Date : USCL/401

Date of NIT : 01/10/2025

Agreement Number and
Date :

Name of Work : **Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance at Ujjain**

Name of the Contractor :

Probable In Fig : Rs 24,60,076.40 (excluding applicable GST)
Amount of Contract :
In words

Contract Amount :
In Fig :
In words

Stipulated Period of : *3 (Three) Months inclusive of Rainy Months*
Completion

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SECTION 1
Notice Inviting e-Tenders
Ujjain Smart City Limited

Ujjain Smart City Limited invites online percentage rate tender for the following works from experienced and reputed contractors fulfilling registration criteria:

SNo	Name of Work	Probable Amount of Contract (In Rupees)	Earnest Money Deposit (EMD) (in Rupees)	Cost of Bid Document (in Rupees)	Period of completion (in Months)
1	Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance at Ujjain	Rs 24,60,076.40 (excluding applicable GST)	49,201/-	5,000/-	3 Months

- All details relating to the Bid Document(s) can be viewed and downloaded free of cost on the website.
- Bid Document can be purchased after making online payment of portal fees through Credit/Debit/Cash Card/ internet banking. / NEFT/RTGS/ System generated Challan
- At the time of submission of the bid the eligible bidder shall be required to:
 - Pay the cost of bid document.**
 - Deposit the Earnest Money**
 - Submit a check list and**
 - Submit an affidavit.**

Details can be seen in the Bid Data Sheet. The above details are to be submitted online only.
- Eligibility for bidders :**
 - At the time of submission of the Bid the bidder should have valid registration with the Government of Madhya Pradesh, PWD in appropriate class. However, such bidders who are not registered with the Government of Madhya Pradesh and are eligible for registration can also submit their bids after having applied for registration with appropriate authority
 - The bidder ~~/One of the members of Joint Venture/~~ Sub-contractor should have valid A Class Electrical Contractor License from Madhya Pradesh Government Electrical Licensing Board (Office of Chief Electrical Inspector, MP Govt.) at the time of signing of the Contract.
 - The bidder would be required to have valid registration with MPPWD in appropriate class at the time of signing of the Contract.
 - Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.
- The Bid Document can be purchased only online as per brief NIT Other key dates may be seen in bid data sheet.
- Amendments to NIT, if any, would be published on website only, and not in newspaper.

Executive Director
Ujjain Smart City Limited

**Notice Inviting e- Tenders
Ujjain Smart City Limited**

Office of the Executive Director, Ujjain Smart City Limited

N.I.T.NO. USCL/377

Dated. 13/06/2023

Ujjain Smart City Limited invites online percentage rate tender for the following works from experienced and reputed contractors fulfilling registration criteria:

SNo	Name of Work	Probable Amount of Contract (In Rupees)	Earnest Money Deposit (EMD) (in Rupees)	Cost of Bid Document (in Rupees)	Period of completion (in Months)
1	Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance at Ujjain	Rs 24,60,076.40 (excluding applicable GST)	49,201/-	5,000/-	3 Months

- Document & other details shall be available on website <https://mptenders.gov.in>
- The Bid Document can be purchased only online as per the schedule given in Brief NIT.
- Pre-Bid Meeting** is scheduled on 08/10/2025 at **3:00 PM** as per the schedule given in Brief NIT **at USCL office Mela Karyalaya Ujjain.**
- Amendments to NIT, if any, would be published on website only, and not in Newspaper.
- The EMD shall be deposited online through portal via Electronic EMD (RTGS, NEFT).
- Key Dates:

S.No.	Particulars	Details
1	Purchase of Tender End Date (Online)	as per the schedule given in Brief NIT
2	Pre- Bid Meeting	as per the schedule given in Brief NIT
3	Financial and Technical Bid Submission End Date (Online)	as per the schedule given in Brief NIT
4	Technical Bid opening (Online)	as per the schedule given in Brief NIT

Note: In case of any mismatch in key dates, key dates showing on e-portal shall be final. For more details, please refer to e-procurement website: www.mptenders.gov.in. Corrigendum or amendments, if any, shall be uploaded on this website only.

Executive Director

Ujjain Smart City Limited

SECTION 2 INSTRUCTIONS TO BIDDERS (ITB)

A. GENERAL

PROJECT OBJECTIVE AND KEY COMPONENTS

1. SCOPE OF BID

- 1.1. The detailed description of work, hereinafter 'work', is given in the Annexure E of this document. The main Scope of work includes the Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance at Ujjain.

2. General Quality of Work:

- 2.1. The work shall have to be executed in accordance with the drawings (prepared by USCL/ Consultant and approved by the competent authority), technical specifications specified in the Bid Data Sheet/Contract Data, and shall have to meet high standards of workmanship, safety and security of workmen and works.

3. PROCEDURE FOR PARTICIPATION IN E-TENDERING

The procedure for participation in e-tendering is given in the Bid Data Sheet. as well as in Annexure F.

4. ONE BID PER BIDDER

- 4.1. The bidder can be an individual entity or a joint venture (if permitted as per Bid Data Sheet). In case the J.V. is permitted, the requirement of joint venture shall be as per the Bid Data Sheet.
- 4.2. No bidder shall be entitled to submit more than one bid whether jointly or severally. If he does so, all bids wherein the bidder has participated shall stand disqualified

5. COST OF BIDDING:

The bidder shall bear all costs associated with the preparation and submission of his bid, and no claim whatsoever for the same shall lie on the Government/ UMC/ USCL or the Authority

6. SITE VISIT AND EXAMINATION OF WORKS:

The bidder is strongly advised to visit and inspect the site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the work. All costs in this respect shall have to be borne by the bidder.

B. BID DOCUMENTS

7. CONTENT OF BID DOCUMENTS:

The Bid Document comprises of the following documents:

1. NIT with all amendments.
2. Instructions to Bidders, Bid Data Sheet with all Annexure
3. Conditions of Contract:
 - I. Part I General Conditions of contract and the Contract Data with all Annexure, and
 - II. Part II Special Condition of Contract.
4. Specifications
5. Drawings / Suggestive Graft is given in Annexure E

6. Priced bill of quantities
7. Technical and Financial bid
8. Letter of Acceptance
9. Agreement, and
10. Any other document(s), as specified

8. EXAMINE

The bidder is expected to examine carefully all instructions, conditions of contract, the Contract data, forms, terms and specifications, bill of quantities, forms and drawings in the bid document, Bidder shall be solely responsible for his failure to do so.

9. PRE-BID MEETING (WHERE APPLICABLE)

Wherever the Bid Data Sheet provides for pre-bid meeting:

- 9.1. Details of venue, date and time would be mentioned in the Bid Data Sheet. Any change in the schedule of pre-bid-meeting would be communicated on the website only, and intimation to bidders would not be given separately.
- 9.2. Any prospective bidder may raise his queries and/or seek clarifications in writing before or during the pre-bid meeting. The purpose of such meeting is to clarify issues and answer questions on any matter that may be raised at that stage. The Employer may, at his option, give such clarifications as are felt necessary.
- 9.3. Minutes of the pre-bid meeting including the gist of the questions raised and the responses given together with any response prepared after the meeting will be hosted on the website.
- 9.4. Pursuant to the pre-bid meeting, if the employer deems it necessary to amend the bid Documents, it shall be done by issuing amendment to the online NIT.

10. AMENDMENT OF BID DOCUMENTS:

- 10.1. Before the deadline for submission of bids, the Employer may amend or modify the bid document by publication of the same on the website.
- 10.2. All amendments shall form part of the Bid Document.
- 10.3. The Employer may, at its discretion, extend the last date for submission of bids by publication of the same on the website.

C. PREPARATION OF BID

11. BID PREPARATION

The bidders have to prepare their bids online, encrypt their Bid Data in the Bid Forms and submit Bid Seals (Hashes) of all the envelopes and documents related to the bid required to be uploaded as per the time schedule mentioned in the key dates of the Notice Inviting e-tenders after signing of the same by the Digital Signature of their authorized representative.as per guideline given on portal.

12. DOCUMENTS COMPRISING THE BID:

The bid submitted online by the bidder shall be in the following parts:

Part 1- This shall be known as online Envelop A and would apply for all bids. Online envelop A shall contain the following as per details given in the bid data sheet:

- i) Registration number or proof of application for registration and organizational details in the format given in the bid data sheet.
- ii) Payment of the cost of Bid Document.
- iii) PAN Number
- iv) GST Number
- v) Earnest Money : and

- vi) Duly notarised Affidavit On Non Judicial stamp of Rs. 100 as per Annexure -B.

The above details are to be submitted online only.

Part 2 – This shall be known as Online **Envelope B** and required to be submitted only in work where pre-qualification conditions and / or special eligibility conditions are stipulated in the Bid Data Sheet. Online Envelope B shall contain a self-certified sheet duly supported by documents to demonstrate fulfilment of pre-qualification conditions.

Part 3- This shall be known as online **Envelope C** and would apply to all bids. Envelope C shall contain financial offer in the prescribed format enclosed with the Bid Data Sheet and shall only be submitted online.

13. LANGUAGE:

The bid as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer shall be in English or Hindi. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English. In such case, for the purposes of interpretation of the bid, such translation shall govern.

14. TECHNICAL PROPOSAL:

- 14.1. Only, in case of bids with pre-qualification conditions defined in the Bid Data Sheet, the Technical Proposal shall comprise of formats and requirements given in the Bid Data Sheet.
- 14.2. All the documents/ information enclosed with the Technical Proposal should be self-attested and certified by the bidder. The Bidder shall be liable for forfeiture of his earnest money deposit, if any document/information is found false/fake/untrue before acceptance of bid. If it is found after acceptance of the bid, the bid sanctioning authority may at his discretion forfeit his performance security / guarantee, security deposit, enlistment deposit and take any other suitable action.

15. FINANCIAL BID:

- 15.1. The bidder shall have to quote rates in format referred in Bid Data Sheet, in overall percentage, and not item wise, if the bid is in absolute amount, overall percentage would be arrived at in relation to the probable amount of contract given in NIT. The overall percentage rate would apply for all items of work.
- 15.2. Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found, lower of the two shall be taken as valid and correct.
- 15.3. The bidder shall have to quote rates inclusive of all duties, taxes, royalties and other levies except Goods & Services Tax (GST). The amount of applicable GST will be paid separately to the contractor with each bill at the time of payment; and the Employer shall not be liable for any duties, taxes (Except GST) royalties and levies.
- 15.4. The material along with the units and rates, which shall be issued, if any, by the department to the contractor, is mentioned in the Bid Data Sheet.

16. PERIOD OF VALIDITY OF BIDS:

The bids shall remain valid for a period specified in the Bid Data Sheet after the date of “close for bidding” as prescribed by the Employer. The validity of the bid can be extended by mutual consent in writing.

17. EARNEST MONEY DEPOSIT (EMD)

- 17.1. The Bidder shall furnish, as part of the Bid, Earnest Money Deposit (EMD), in the amount specified in the Bid Data Sheet.

- 17.2. EMD/ Bid Security shall be submitted only online using options available in the tender portal within the specified time limit. Bidders are advised to process it well in advance. No claim shall be entertained due to delay in online transactions via payment gateway/banking portal."
- 17.3. Bid not accompanied by EMD shall be liable for rejection as non-responsive.
- 17.4. EMD of all bidders except L1 will be returned within ten working days of the decision on the bid.
- 17.5. EMD of the successful Bidder will be discharged when the Bidder has signed the Agreement after furnishing the required Performance security.
- 17.6. Failure to sign the contract by the selected bidder, within the specified period, for whatsoever reason, shall result in forfeiture of the earnest money.

D. SUBMISSION OF BID

18. BID SUBMISSION

The Bidder is required to submit digitally signed Bid ie. Envelop A, B & C Online only. No physical submission of the Bid will be accepted except in exceptional case under clause 19.7."

E. OPENING AND EVALUATION OF BID

19. PROCEDURE:

- 19.1. Envelope "A" shall be opened first online at the time and date notified and its contents shall be checked. In cases where Envelope "A" does not contain all requisite documents, such bid shall be treated as non-responsive , and Envelope B and / or C of such bid shall not be opened.
- 19.2. Wherever Envelope 'B' (Technical Bid) is required to be submitted, the same shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelope 'B' Envelope 'C' (financial bid) of bidders who are not qualified in Technical Bid (Envelop 'B') shall not be opened.
- 19.3. Envelope 'C' (Financial Bid) shall be opened online at the time and date notified. The bidder shall have freedom to witness opening of the Envelope 'C'
- 19.4. After opening Envelope 'C' all responsive bids shall be compared to determine the lowest evaluated bid.
- 19.5. The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all the bids at any time prior to contract award, without incurring any liability. In all such cases reasons shall be recorded.
- 19.6. The employer reserves the right of accepting the bid for the whole work or for a distinct part of it.
- 19.7. "In exceptional case, if physical submission of certain documents is found essential, then expressed prior permission must be obtained in writing by the tender issuing authority from an authority, as authorized by the State Government. In such a case, such documents are required are to be submitted physically at the place and date specified in the Bid Data Sheet. In case of any mismatch in the documents submitted in the physical form and that uploaded or ie online, or if the contractor fails to submit the document physically, the bid shall be liable for rejection as non- responsive.

20. CONFIDENTIALITY:

- 20.1. Information relating to examination, evaluation, comparison and recommendation of contract award shall not be disclosed to bidders or any other person not officially concerned with such process until final decision on the bid.
- 20.2. Any Attempt by a bidder to influence the employer in the evaluation of the bids or contract award decisions may result in the rejection of his bid.

F. AWARD OF CONTRACT

21. AWARD OF CONTRACT:

The Employer shall notify the successful bidder by issuing a 'Letter of Acceptance' (LOA) that his bid has been accepted. The original copy of Affidavit will have to be submitted by the successful bidder at the time of signing of contract.

22. PERFORMANCE SECURITY

- 22.1. Prior to signing of the contract, the bidder to whom LOA has been issued shall have to furnish performance security of the amount in the form and for the duration, etc. as specified in the Bid Data Sheet.
- 22.2. Additional performance security, if applicable, is mentioned in the Bid data sheet and shall be in the form and for the duration, etc. similar to Performance Security.

23. SIGNING OF CONTRACT AGREEMENT:

- 23.1. The successful bidder shall have to furnish Performance Security and Additional Performance Security, if any, and sign the contract agreement within 15 days of issue of LOA
- 23.2. The signing of contract agreement shall be reckoned as intimation to commencement of work. No separate work order shall be issued by the employer to the contractor for commencement of work.
- 23.3. In the event of failure of the successful bidder to submit Performance Security and Additional Performance Security, if any or sign the Contract Agreement, his EMD shall stand forfeited without prejudice to the right of the employer for taking any other action against the bidder.

24. CORRUPT PRACTICES:

The Employer requires that bidders observe the highest standard of ethics during the procurement and execution of contracts. In pursuance of this policy, the employer.

- i. May reject the bid for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract; and
- ii. May debar the bidder declaring ineligible, either indefinitely or for a stated period of time, to participate in bids, if it at any time determines that the bidder has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, a contract.

For the purposes of this provision, the terms set forth above are defined as follows:

- a. '**Corrupt Practice**' means the offering, giving, receiving or soliciting directly or indirectly, anything of value to influence improperly the actions of another party.
- b. '**Fraudulent Practice**' means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation:
- c. '**Coercive Practice**' means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party,
- d. 'Collusive practice' means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.

(END OF ITB)



BID DATA SHEET

GENERAL		
SR.NO.	PARTICULARS	DATA
1	Office inviting tender	UJJAIN SMART CITY LIMITED
2	NIT No.	N.I.T. NO. USCL /400
3	Date of NIT	01/10/2025
4	Bid document download available from date & time	01/10/2025
5	Website link	https://mptenders.gov.in
SECTION 1 – NIT		
CLAUSE REFERENCE	PARTICULARS	DATA
2	Portal fees	As notified in e-tendering website
3	Cost of bid document	Rs 5,000.00 (Five Thousand) + portal processing fees etc.
	Cost of bid document payable at	As notified in e-tendering website
	Cost of bid document in favour of	As notified in e-tendering website (Bidders shall be directed to the payment gateway through the portal)
4	Affidavit format	As per ANNEXURE B
5	Pre-Qualifications required	Not Applicable
	If yes, details	As per ANNEXURE C
6	Special Eligibility	Not Applicable
	If Yes, details	As per ANNEXURE D
7	Key dates	As per ANNEXURE A
SECTION 2 – IT B		
CLAUSE REFERENCE	PARTICULARS	DATA
1.	Name of 'work'	Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 01 years operation and maintenance at Ujjain
2.	Specifications	As per ANNEXURE –E
3.	Procedure for participation in e-tendering	As per ANNEXURE –F
4.	Whether joint venture is allowed	No
	If yes, requirement for joint venture	As per ANNEXURE – G
	Pre bid meeting to be held	Yes
	If Yes, Date, Time & Place	As per NIT Place: Mela Office, Kothi Road, Ujjain, Madhya Pradesh – 456010

CLAUSE REFERENCE	PARTICULARS	DATA
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12	Envelop A containing : i. Registration number or proof of application for registration and organizational details as per Annexure H ii. Cost of Bid Document iii. EMD iv. An affidavit duly notarized as per Annexure – B	Online submission Only
	Envelope-B Technical Proposal	ANNEXURE – I and ANNEXURE –I (Format I-1 to I-5)
	Envelope-C Financial Bid	Annexure – J (SHOULD BE SUBMITTED ONLINE)
	Materials to be issued by the department	ANNEXURE – K
	Period of Validity of Bid	120 Days
17	Earnest Money Deposit	Rs. 49,201/-
	Forms of Earnest Money deposit	e-EMD (RTGS / NEFT)
	EMD valid for a period of	120 Days beyond the final validity period of bids from the last date of submission of bids.
21	Letter of Acceptance (LoA)	ANNEXURE L
22	Amount of Performance Security	Performance Security at the rate of 3 percent of the contract value shall be required In case of any discrepancy in provisions on performance security, the latest guidelines issued by Finance Department/PWD/UADD of Govt. MP shall be applicable.
	Additional Performance Security, if any	In case the quote of the Successful Bidder is more than 10% below the PAC amount, then additional performance security shall be required to be submitted by the successful bidder. the latest circular issued by PWD of MP Govt. shall be applicable. (MPPWD Order No. F-53/02/2011/YO/19/525, DATED- 14/02/2025) (as attached) The Additional Performance Security shall not be treated as part of Performance Security and shall be released on completion of project. In case of any discrepancy in provisions on performance security or additional performance security, the latest guidelines issued by Finance Department/PWD/UADD of Govt. MP shall be applicable.

Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 01 years operation and maintenance at Ujjain

		<p align="center">मध्यप्रदेश शासन लोक निर्माण विभाग मंत्रालय</p> <p>क्रमांक-एफ-53/02/2011/यो/19 भोपाल, दिनांक // आदेश //</p> <p>मध्यप्रदेश शासन, लोक निर्माण विभाग द्वारा जारी आदेश क्रमांक-एफ-53/02/2011/यो/19/2022 भोपाल, दिनांक 10 अगस्त 2022 में अतिरिक्त परफॉर्मेंस गारंटी की राशि की गणना के लिए उल्लेखित गणितीय विधा के बिन्दु क्रमांक 3(अ) एवं 3(ब) में निम्नानुसार संशोधन उपरांत प्रतिस्थापित किया जाता है:-</p> <p>3.1 निविदा में 10 प्रतिशत कम दर प्राप्त होने पर कोई अतिरिक्त परफॉर्मेंस गारंटी की राशि नहीं लिया जाना है।</p> <p>3.2 निविदा में 10 से 20 प्रतिशत तक कम दर आने पर निविदा दर 10 प्रतिशत से बढ़कर जितने प्रतिशत कम होगी PAC राशि का उतना प्रतिशत अतिरिक्त परफॉर्मेंस गारंटी की राशि निम्नानुसार होगी:-</p> <p>उदाहरण- यदि निविदा की अनुमानित लागत (PAC) Rs. 100.00 लाख है, तथा सफलतम निविदाकार की दर 14 प्रतिशत Below SOR हो तो अतिरिक्त परफॉर्मेंस गारंटी की गणना निम्नानुसार होगी:-</p> <p>एफ.डी.आर. के रूप में प्रस्तुत की जाने वाली अतिरिक्त परफॉर्मेंस गारंटी की राशि:-</p> <p>Probable Amount of Contract (PAC) X Rates Below SOR Beyond 10%=100 (14%-10%)= Rs. 4.00 लाख</p> <p>3.3 निविदा में 20 प्रतिशत से अधिक कम दर (RATES BELOW SOR BEYOND 20%) आने पर निविदा दर आने पर गणना निम्नानुसार होगी:-</p> <p>उदाहरण- यदि निविदा की अनुमानित लागत (PAC) Rs. 100.00 लाख है तथा, सफलतम निविदाकार की दर 24 प्रतिशत Below SOR हो तो अतिरिक्त परफॉर्मेंस गारंटी की गणना निम्नानुसार होगी:-</p> <p>एफ.डी.आर. के रूप में प्रस्तुत की जाने वाली अतिरिक्त परफॉर्मेंस गारंटी की राशि:- A+B</p> <p>A. Probable Amount of Contract X1 x Rates Below SOR Beyond 10% upto 20% = 100x1x (10%) = Rs. 10.00 लाख</p> <p>B. Probable Amount of Contract X Rates Below SOR Beyond 20% = 100x2x (4%) = Rs. 8.00 लाख</p> <p>अर्थात् कुल अतिरिक्त परफॉर्मेंस गारंटी की राशि- (A+B)= Rs. 18.00 लाख</p> <p>परिचय -Latter-2025-1</p> <p align="right">/2/</p> <p>3.4 ऐसे अनुबंध में जिनमें 10 प्रतिशत कम दर की सीमा से अधिक कम दरों पर अनुबंध निष्पादित किये जाने उन अनुबंधित कार्यों के पूर्ण होने के उपरांत उनके अंतिम देयकों का भुगतान संबंधित अधीक्षण यंत्री के निरीक्षण उपरांत संतोषजनक पाये जाने पर तदनुसार अधीक्षण यंत्री द्वारा अनुमति प्रदान किये जाने के पश्चात ही किए जावे।</p> <p>3.5 उपरोक्त के अतिरिक्त कार्य स्थल पर स्थापित बैच मिक्स प्लांट, रेडीमिक्स कांकीट (RMC) प्लांट का अधीक्षण यंत्री के द्वारा निरीक्षण किये जाने के उपरांत ही कार्य प्रारंभ किया जावे।</p> <p>3.6 राशि रुपये 2.00 से 10.00 करोड़ तक के कार्यों के लिये स्थल पर स्थापित लेबोरेट्री का निरीक्षण अधीक्षण यंत्री के द्वारा तथा राशि रुपये 10.00 करोड़ से अधिक के कार्यों के लिये स्थापित लेबोरेट्री का निरीक्षण मुख्य अभियंता द्वारा किये जाने के उपरांत ही कार्य प्रारंभ किया जावे।</p> <p>अतिरिक्त परफॉर्मेंस गारंटी की एफ.डी.आर. कार्यपूर्णता के उपरांत ही विमुक्त की जा सकेगी।</p> <p align="right">  14/02/25 (ए. आर. सिंह) उप सचिव </p> <p>पृ. क्रमांक-एफ-53/02/2011/यो/19/525 प्रतिनिधि:-</p> <p>म0प्र0 शासन, लोक निर्माण विभाग भोपाल, दिनांक 14/02/2025</p> <ol style="list-style-type: none"> प्रमुख अभियंता, (सड़क/पुल) लोक निर्माण विभाग भोपाल। प्रबंध संचालक, म.प्र. सड़क विकास निगम भोपाल। प्रमुख अभियंता (भवन) लोक निर्माण विभाग भोपाल। प्रबंध संचालक, म.प्र. भवन विकास निगम भोपाल। विशेष सहायक, माननीय मंत्री जी लोक निर्माण विभाग भोपाल। समस्त मुख्य अभियंता, (सड़क/पुल) लोक निर्माण विभाग। समस्त मुख्य अभियंता, (भवन) लोक निर्माण विभाग। समस्त अधीक्षण यंत्री, लोक निर्माण विभाग मध्य प्रदेश। समस्त कार्यपालन यंत्री लोक निर्माण विभाग मध्य प्रदेश। कार्यपालन यंत्री, (भवन) लोक निर्माण विभाग मध्य प्रदेश। <p>की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।</p> <p align="right">  14/02/25 उप सचिव म0प्र0 शासन, लोक निर्माण विभाग </p>
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	Performance security in the format	<i>ANNEXURE M</i>
	Performance security in favour of	<i>Executive Director, USCL</i>
	Performance security valid up to	<i>Valid till issue of Completion Certificate plus Defect Liability Period plus three months.</i>

Annexure – A
(See clause 1, 7 of Section 1-NIT)

KEY DATES

Please Refer Brief NIT

Annexure – B
(See clause 3 of Section 1-NIT)

|| AFFIDAVIT ||
(To be contained in Envelope A)
(On Non Judicial stamp of Rs. 100)¹

I/We _____ who is / are _____ (status in the firm / company) and competent for submission of the affidavit on behalf of M/S _____ (contractor) do solemnly affirm an oath and state that :

I/We am / are fully satisfied for the correctness of the certificates/ records submitted in support of the following information in bid documents which are being submitted in response to notice inviting e-tender No. _____ for _____ (name of work) dated _____ issued by the _____ (name of the Department).

I/We am/ are fully responsible for the correctness of following self- certified information / digitally signed documents and certificates.

1. That the self – certified information given in the bid document is fully true and authentic.
2. That :
 1. ~~Term deposit receipt deposited as earnest money, demand draft for cost of bid document and other relevant documents provided by the Bank are authentic.²~~
 1. Information regarding financial qualification and annual turnover submitted online is correct.
 2. Information regarding various technical qualifications submitted online is correct.
3. No. close relative of the undersigned and our firm/company is working in the department.

Or

Following close relatives are working in the department:

Name _____ - Post _____ present Posting _____

Signature with seal of the Deponent (bidder)

I/We, _____ above deponent do hereby certify that the facts mentioned in above paras 1 to 4 are correct to the best of my knowledge and belief. . In the event of any information is to be found to be incorrect / untrue or found violated, then without giving any prior notice, our bid shall be liable for rejection or termination of contract, with prejudice to any other rights of Remedy including the forfeiture of the bid security / Performance security.

Verified today _____ (dated) at _____ (place).

Signature with seal of the Deponent (bidder)

The original copy of **Affidavit** will have to be submitted by the successful **bidder** at the time of **signing** _____ of _____ contract

¹ Deleted Order issued by Chief Engineer MP PWD vide order No Øekad401@lk@fofo/k@002@2014 @2012Hkksiky]fnukad 08-01-2015

² Deleted as EMD is paid online.

Annexure—C

~~(Sec clause 5 of Section 1 NIT)~~

PRE- QUALIFICATIONS CRITERIA

Not applicable.

The bidder should have:

A. Financial

i. Experience of having successfully executed: -
(For Individuals)

- a) ~~Three similar works~~, each costing not less than the ~~amount equal to 20%~~ of the probable amount of contract during the ~~last 5 years~~; or
- b) ~~Two similar works~~, each costing not less than the ~~amount equal to 30%~~ of the probable amount of contract during the ~~last 5 years~~; or
- c) ~~One similar work~~ of aggregate cost not less than the amount equal to ~~50% of the probable amount~~ of contract during ~~the last 5 years~~;

(For Joint Ventures)

- (i) Out of 3 Similar Work of value more than 20% of PAC at least 2 Works must be done by lead partner and one Work to be done by the other partner.
- (ii) Out of 2 Similar Work of Value more than 30% of PAC, at least (One) work must be done by lead partner and 1 (One) Work is done by other partner, OR
- (iii) In case of One similar work of value more than 50% of PAC the lead partner must satisfy the criteria. However, the other partner satisfy the criteria in (i) above i.e at least one work of 20% of PAC

- ii. ~~Average Annual Construction Turnover~~ on the construction works ~~shall not be less than 50%~~ of the probable amount of contract during ~~the last 3 financial years~~.
- iii. Executed similar items of work in any one financial year during the last 3 financial years, which should not be less than the minimum, physical requirement, if any, fixed for the work.
- iv. ~~Bid Capacity~~ — Bidder shall be allotted work up to his available Bid Capacity, which shall be worked out as given in ~~Format 1 2 of Annexure I. Bid Capacity shall be equal to or higher than the bid amount.~~

Annexure —D
(See clause 6 of Section 1-NIT)

SPECIAL ELIGIBILITY CRITERIA

Not applicable.

ANNEXURE – E
(See clause 2 of Section 2 —ITB & clause 10 of GCC)

Technical Specifications & Scope of Work

1 General Scope of Work

Construction of Water Hut and supply, installation, commissioning of RO water Treatment plant cum Cooler for Pilgrims in Mahakaal Lok including 1 years operation and maintenance and 3 year Defect Liability Period at Ujjain.

Reverse Osmosis Water Treatment Plant

The proposed Reverse Osmosis System has been designed to produce 1000 LPH of permeate from Raw Water with characteristics mentioned in further section.

The proposed Reverse Osmosis System consists of following scheme;

Raw Water tank → Filter Feed Pump → Pressure Sand Filter → Activated Carbon filter → Antiscalant Dosing System → Micron Cartridge Filter → High Pressure Pump → RO Block → UV System → pH Dosing System → Treated water Tank

Treated water Quality at the Outlet of RO System:

Sr. No.	Parameters	Value	Unit
1	TDS	150	ppm

PROCESS DESCRIPTION

Sand Media Filter:

These are the most conventional filter and are in extensive use. The filtering media in this case is Fine sand. The sand is normally supported on the bed of graded pebbles.

Raw Water with the help of filter feed pump passes through the Sand media filter for the initial turbidity removal from the incoming water.

Activated Carbon Filter:

Activated Carbon Filter is one of the most widely used media for absorption of impurities.

Antiscalant Dosing System:

The anti-scalant chemical is added online to protect the membrane from scaling/fouling.

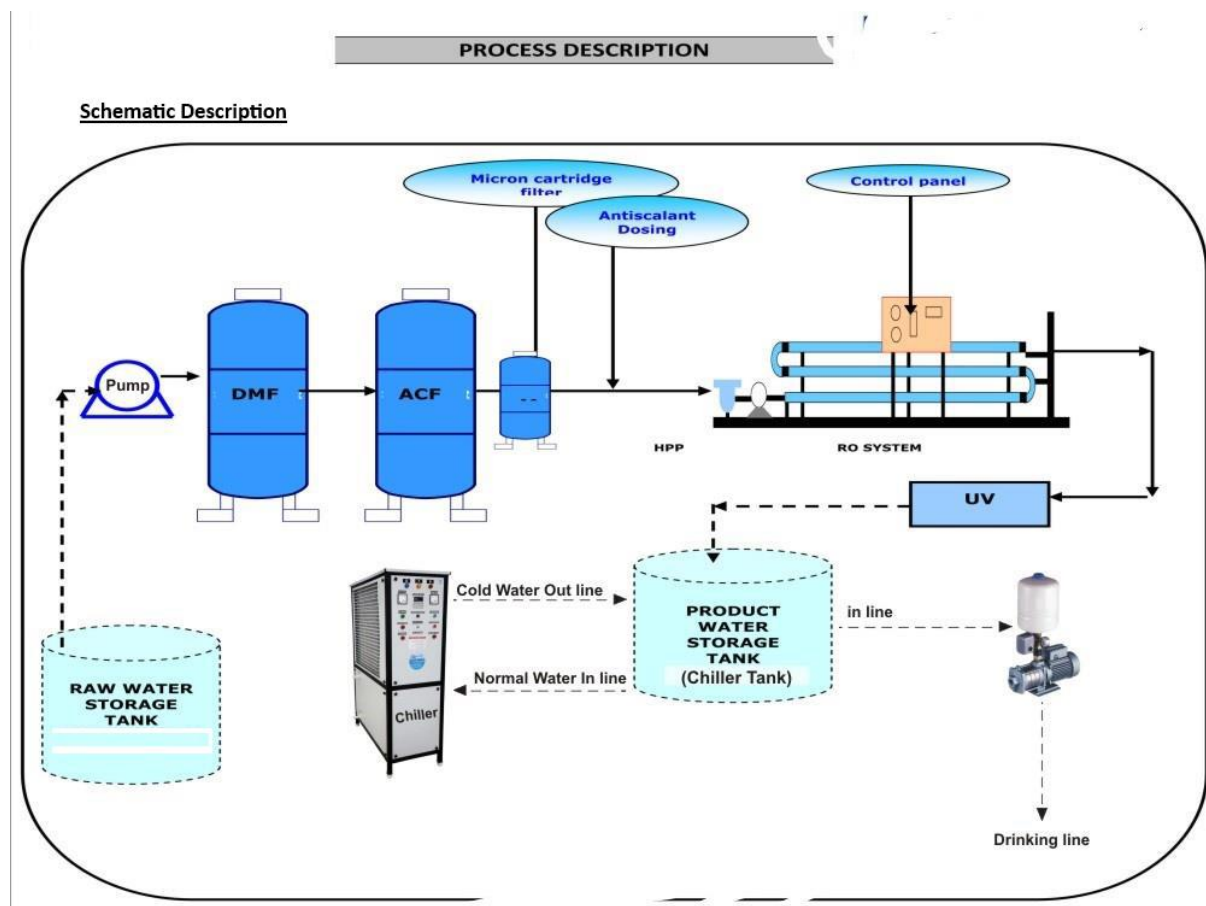
RO System:

Reverse Osmosis (RO) is the tightest possible membrane process in liquid/liquid separation. Water is in principle the only material passing through the membrane; essentially all dissolved and suspended material is rejected. Osmosis separates

impurities from water by passing it through a semi-permeable membrane. The semi-permeable membrane allows only very small atoms and groups of atoms (such as water molecules, small organic molecules and gases) to pass through it.

Advanced reverse osmosis technology uses "cross flow" that allows a partially permeable membrane to clean itself continually. As some of the fluid passes through the membrane, the rest continues downstream, sweeping the rejected species away from it. The process requires a pump to push the fluid through the membrane. The higher the pressure, the larger the driving forces.

As concentration of the fluid being rejected increases, so does the driving force. Reverse osmosis is used to reject bacteria, salts, sugars, proteins, particles, dyes, and



SCOPE OF SUPPLY WITH TECHNICAL SPECIFICATION.			
1.	Filter Feed Pump		
	Type	:	Centrifugal Mono-block
	Quantity	:	1 No.
	Capacity	:	1.90 m ³ /hr @ 25 mwc.

	MOC	:	Cl.
	Electric Supply	:	Single phase
2.	Sand Media Filter		
	Quantity	:	1 No.
	Capacity	:	1.81 m ³ /hr.
	MOC of Vessel	:	Polyglass
	Size	:	16" X 65"
	Type of valve	:	Auto Multiport Valve
	Media	:	Sand + Support bed
3.	Activated Carbon Filter		
	Quantity	:	1 No.
	Capacity	:	1.81 m ³ /hr.
	MOC of Vessel	:	Polyglass
	Size	:	16" X 65"
	Type of valve	:	Auto Multiport Valve
	Media	:	Activated carbon + Support bed
4.	Antiscalant Dosing System		
	Dosing Pump		
	Quantity	:	1 No.
	Type	:	Electro-magnetic.
	Capacity	:	0-1.5 LPH.
	Discharge Pressure	:	2.5 kg/cm ² .
	Dosing Tank		1 Nos.
	Capacity	:	60 lit.
	Material of Construction	:	LLDPE.
5.	Micron Cartridge Filter (MCF)		
	Quantity	:	1 No.
	Capacity	:	1.81 m ³ /hr.
	MOC of Housing	:	ABS

	MOC of Cartridge	:	PP.
	Filter Rating	:	5 micron.
6.	High Pressure Pump		
	Quantity	:	1 No.
	Type of pump	:	Vertical Multistage
	Capacity	:	2.22 m ³ /hr
	Maximum Discharge Pressure	:	120 m
	Material of Construction	:	SS 304 (Wetted parts)
	Electric Supply	:	3 phase
7.	Pressure Vessel		

	Quantity	:	2 Nos.
	MOC	:	FRP
	Diameter	:	4"
8.	Membranes		
	Quantity	:	4 nos.
	Type	:	TFC Polyamide
	Size	:	4"
9.	UV System		
	Quantity	:	1 No.
	Capacity	:	1000 LPH
	MOC	:	SS 304
10.	Skid	:	MS Powder coated / ss 304 (1 set)
11.	pH Dosing System		
	Dosing Pump		
	Quantity	:	1 No.
	Type	:	Electro-magnetic.
	Capacity	:	0-1.5 LPH.
	Discharge Pressure	:	2.5 kg/cm ² .
	Dosing Tank	:	1 Nos.
	Capacity	:	60 lit.
	Material of Construction	:	LLDPE.
12.	Instrumentation		
	Pressure gauge		
	Quantity	:	1 set
	Rotameter		
	Quantity	:	1 set
	Pressure switches		
	Low Pressure		
	Quantity	:	01 No.
	Range	:	0.5 – 5 kg/cm ²
	Location	:	HPP Suction
	High Pressure		
	Quantity	:	01 No.
	Range	:	2 – 25 kg/cm ²
	Location	:	HPP Discharge
	Conductivity Meter (Inbuilt in		
	Quantity	:	01 No.
	Type	:	Online
	Range	:	0 – 200 μ Siemens/cm
	Location	:	RO Permeate Line
	Level Switch		
	Quantity	:	02 Nos.
	Location	:	Raw Water Tank & Product Water

	Auto Flush Valve	:	1 no. (Reject Line)
13..	Control Panel		
	Quantity	:	01 No.
	Type	:	Microprocessor based control
	Operation	:	Automatic
14.	ICPW		
	Quantity	:	01 Lot.
	Low Pressure & High Pressure	:	UPVC Sch. 40
		:	Outlet flange of raw water pump to outlet flange of UV system(piping terminated on skid)

- Design Engineering

SCOPE OF WORK & BATTERY LIMITS

All design and drawing are in the scope of successful bidder or agency.

- Design & engineering.
- Process design.
- P&ID.
- Equipment layout with foundation details.
- Supervision of E&C

Raw Water	At the inlet flange of Filter Feed Pump (piping terminated properly on skid)
Treated Water	At the outlet flange of UV system (piping terminated properly on skid)
Electricity	Control Panel for RO Unit & incomer cabling to panel
Drain	Drain at outlet of PSF/ACF/RO properly on Skid
Piping	ICPW is as per the termination points above

1. Supply of Equipment

- 1000 LPH RO Plant complete with:
- Raw water pump
- Sand filter (multimedia filter)
- Activated carbon filter
- Micron cartridge filter (5 micron)
- High pressure pump
- RO membranes (minimum 2 x 4040 or equivalent)

- RO skid (SS/MS powder coated)
- Flow meters, pressure gauges, valves, and piping
- Post-treatment unit (UV/UF/Mineral filter, as applicable)
- Control panel (automatic/semi-automatic)
- Product and reject water lines

2. Installation & Commissioning

- Erection and installation of all components at the designated site.
- Connection to water inlet, electricity supply, and drainage.
- Leak-proof plumbing, cabling, and electrical wiring.
- Initial water quality testing (input/output).

3. Civil & Plumbing Works

- Construction of base foundation or equipment room (if needed).
- Installation of water supply and drain pipelines.
- Concrete platform or flooring for RO system (if applicable).

4. Electrical Works

- Connection of high-pressure pump and control panel to main power line.
- Provision of MCB, earthing, and safety systems.

5. Testing & Commissioning

- Complete system testing for performance, recovery rate, and output quality.
- Trial run for minimum 48 hours.
- Final water quality test as per BIS 10500 standard.

6. Training & Handover

- On-site training to operator/staff on routine operation and maintenance.
- Submission of O&M Manual, system design, and warranty certificate.

7. Operation & Maintenance

- One-year free on-site warranty and maintenance of all equipment.

- Quarterly servicing, membrane cleaning, and performance checks.
- Replacement of consumables during the warranty period.

The dismantled material/scrap of existing Utility to be shifted/ dismantled shall belong to the Contractor who would be free to dispose-off at proper place and restore all work which will be damage during execution of work. No extra payment shall be done for this work to contractor.

The bidders may visit the site and assess the work of the projects before submission of their bid.

1.1 Scope of Project:

- a) Under this tender Scope of work of contractor also include Preparation of Working Drawings, Procurement and Construction Basis
- b) Maintenance of the Project in accordance with the provisions of this Agreement and in conformity with the requirements.
- c) Performance and fulfilment of all other obligations of the Contractor in accordance with the provisions of this Agreement and matters incidental there to or necessary for the performance of any or all of the obligations of the Contractor under this Agreement.
- d) If due to any unavoidable circumstances, it needs to shift the location of project partly or fully, the contractor shall carry out the work partly or fully at another alternative location without any extra claim. The expenditure towards preliminary activities if carried out by the contractor shall be reimbursed by USCL. (Actual expenditure or payment shown in Schedule of Payment-pre- construction activities-as per stage of work carried out by the contractor whichever is less).
- e) Scope of work contained in the paragraphs mentioned below is only indicative and not exhaustive. In addition, the contractor shall be responsible for executing all items required for completing the work as per direction of Engineer-in-charge. The price quoted shall include all the items and covers all details as may be required to meet the purpose and intents of the contract.
- f) The scope of work is not limited only as mentioned in above paras, but also include to address any exigency generated during tendered work execution and no extra cost shall be paid for the same.
- g) No extra payment shall be paid for time overrun.

1.2 Supplementary Information

The Bidder having visited and inspected the Site before the submission of his Bid, shall detail any supplementary information gathered by him from the Site about the positive or negative impacts of the site conditions, air or water. S/He may also indicate if any adverse impact of the site conditions has bearing (including extent thereof) on the rates bid by him. Likewise, if the Procuring Entity acquires any supplementary information to support the execution of the project, he shall share it with all the Bidders.

1.3 Quality Assurance Plan

The bidder shall enclose his quality assurance plan, stating the methodology/ responsibility for sampling, testing/ confirmatory testing, testing frequencies, statistical quality controls, observation/ report formats, acceptance criteria, issue and resolution of Non-Conformance Reports etc.

1.4 Procuring Entity's General Requirements

The Procuring Entity requires that:

1. Pretest and confirm/ seek approval from the Procuring Entity of all input materials. Suggest any suitable local materials along with its test data for use in the Works through value engineering. Any non-conformance or failure of the Works on account of use of such materials shall be the responsibility of the Contractor.
2. Ensure use of specified and approved materials, specified procedures, proper equipment and the specified output to ensure proper quality and durability of Works.
3. Pre-empt any possibility of force majeure conditions along with proper coordination with the Procuring Entity.
4. Minimize the variations and extensions in the time for completion.
5. Protect the Environment at the Site.
6. Promote a congenial working atmosphere at the Site.
7. Employ the team of artists, engineers and personnel as specified in the Contract, skilled and other labour in planned manner.
8. Comply to the instructions of the Engineer-in Charge and the Third-Party Quality Inspection Agency, if any, with regard to quality and durability of the Works.
9. Serve faithfully the defect liability and the maintenance period, if any.
10. On completion of the Works prepare the as built drawings and designs for submission to Engineer-in-Charge.
11. The Contractor after development of facility, shall handhold and maintain the facility in accordance with best industry practices and directions of Engineer in Charge during the DLP period.
12. Others, as required.

1.5 Workmanship

1. Presence of an artist and a Site Supervisor for carving of stone & Mural work is mandatory on site during the execution of the works.
2. High quality of workmanship is essential to be achieved

3. All scientific and stone carving work will be done under the supervision of an Artist, who will be hired by the CONTRACTOR.
4. All works shall be true to level, plumb and square. The corners, edges and rises in all cases shall be unbroken and neat.
5. Any work not to the satisfaction of the USCL/ Architect/ Consultant shall be rejected. The same shall be rectified or removed and replaced with work of the required standard of workmanship at no extra cost.

1.6 Dismantling & repair Works

The rate of items in this section to include:

1. All scaffolding, platforms, ladders, staging and plant required in the execution of work to any height or depth and lift.
2. Removing any undulations / out of plumb concrete or other material from the existing RCC wall / columns under the supervision of an Engineer.
3. Compliance with all stipulation of technical specification.
4. Compliance with local/state/statutory bodies laws, rules and regulations.
5. Royalty & other taxes payable.

1.7 Scope Of Work Civil Components:

- i. Contractor shall independently assess the data / information required and shall collect the same at his own cost. Details and drawings given in tender document are indicative and for information purpose only. Successful bidder shall carry out preliminary surveys / confirmatory surveys to the satisfaction of the Engineer-in-Charge and prepare necessary working drawings and maps. On the basis of survey carried out; temporary / permanent bench marks shall also be established for reference during execution.
- ii. Carry out detailed Design and Good for Construction (GFC) Drawings for all the components of the work as per applicable guidelines/ codes and Employer's requirement and submit the same to client for review and approval.
- iii. The work shall be executed conforming to the approved designs and drawings with detail and levels to the perfect line and plumb in a highly professional manner.
- iv. Monthly progress of the work shall be reported to the Project manager/ Engineer - in-Charge along with all other detail such as material consumption test reports etc.
- v. Thus, all the works shall be successfully completed and all the record drawings / as built drawings shall be submitted to the department.

No separate payment will be made for the confirmatory, laboratory test, factory and performance tests, testing and commissioning etc. unless they are specifically provided and quantified in the bills of quantities. This shall be included in the rates and prices of the physical works itemized and quantified in the bill of quantities. The payments are to be made for all supplies and physical works described in the bill of quantities according to the measured and agreed quantities executed.

The successful bidder shall have to prepare and submit 'As Built Drawings' depicting the exact construction carried out on site, in soft and hard copy format.

Statutory and other charges for getting various required approvals shall be in scope of Successful bidder. The scope of work also includes:

2 Specifications

The works in General shall be carried out as per latest MP-UADD Specifications, (updated with corrections slips issued up to last date of submission of tender) unless otherwise specified in the nomenclature of the individual item or in the particular specifications of concerned items of works.

For items not covered under MP-UADD specifications with correction slips or those specifications that are not given in the technical specifications appended or not incorporated in the nomenclature of the individual item, all Civil work shall be done as per following specifications or as per approval of Engineer-in-charge:

1. MP UADD Specification
2. MP PWD Department Specifications,
3. IRC Specifications and IS Codes
4. UTIPEC Road Design Specifications
5. CPWD Specifications
6. MoRTH Specifications as per 5th revision w.e.f. April 2013.
7. IRC-15-2002 Design of Concrete Roads
8. IRC-58-1988 Design of Rigid Pavements for Highways
9. Mannal on Storm Water Drainage Systems May 2019
10. IRC Guidelines on Urban Drainage: IRC SP 50 – Aug 2013
11. Manual on Sewerage and Sewage Treatment Systems - November 2013
12. Manual on Water Supply and Treatment - May 1999
13. Guidelines on Accommodation of Utility Services on Roads in Urban Areas: IRC 98 – 2011
14. Heritage Manual (CPWD)
15. Municipal Solid Waste Rules
16. Applicable Rules of Central and State Pollution Control Boards
17. For Solar Panels, Accessories and related items the Specifications of MNRE shall be followed
18. Guidelines issued by CEA for Underground Cabling
19. Guidelines issued by MoUD, IUT, ITDP for Urban Street/ Smart Roads, NBC.

20. All the works shall be executed as per the approved drawings / designs. The patterns shown in the tender drawings can be modified as per the site requirements by the Engineer- in-charge and nothing extra whatsoever shall be payable over and above the quoted rates.
21. Material should be of the best approved quality obtainable and they shall comply with the respective Indian Standard Specifications. Samples of all materials shall be got approved before placing order and the approved sample shall be deposited with the Client/Engineer In-Charge.
22. Only ISI mark 43/53 grade Ordinary Portland Cement of relevant I.S. specifications shall be used for the work. Any lot of cement brought to site by the contractor would be permitted to be used in the work only after the satisfactory results are received, of the requisite tests under the supervision of the Engineer-In-Charge or his authorized representative.
23. The contractor shall submit test certificate in the Performa prescribed / approved by B.I.S. from the manufacturer for every batch of steel brought to the work site.
24. The surface regularity of the completed sub-grade, sub-base, base course and widening of surfaces in longitudinal and transverse direction shall be within the tolerance limit indicated in Table 900-1, Clause 902.
25. The provisions of general / special conditions of contract, those specified elsewhere in the Bid-Documents, as well as execution drawings and notes, or other specifications appended in Tender Document or issued in writing by the Employer shall form part of the technical specifications of this work.

2.1 Specification For Storm Water Drainage

All specifications for storm water drainage shall be followed by:

1. CPHEEO manual sewerage and drainage, MoUD, GoI published in Nov. 2013
2. MP PWD specifications on sewerage and drainage
3. MP UADD specifications on sewerage and drainage

2.2 Specification For Water Supply Retrofitting

All specifications for water supply shall be followed by:

1. CPHEEO manual on water supply MoUD, GoI published in Year 1999
2. MP PWD specifications on water supply
3. MP UADD specifications on water supply
4. BIS Standards on water supply

2.2.1 DESIGN – WORKMANSHIP AND INTERPRETATION OF CLAUSES:

2.51 The design and quality of goods supplied, and the workmanship shall be in accordance with the best engineering practice to ensure satisfactory performance of the system throughout the service life.

2.52 The goods and accessories offered shall be complete in all respects. Any material and / or component thought not specifically stated in this specification but is necessary for trouble free and successful operation shall be deemed to be included. All such components, accessories, etc., shall be supplied at no extra cost.

2.53 The goods supplied shall be such that components, accessories of the same type shall be interchangeable. Likewise, similar or corresponding parts, components / accessories shall also be interchangeable.

2.54 Wherever and whenever a material or article is specified or described by the name of a particular brand, manufacturer, vendor, the specific item mentioned shall be understood as establishing type, function, quality and not as limiting competition. However, bidders may offer other similar components / accessories provided they meet with the required standards, design, duties and performance.

2.55 Goods and accessories so offered shall conform to type test and shall also be subjected to acceptance and routine tests in accordance with the requirements stipulated in this specification. The CESU reserves the right for repeating any or all of the type tests to be conducted on the goods supplied.

2.2.2 Construction characteristics

- The circuit-breaker structure must be made of steel sheet.
- There must be total segregation between power and front shield, using double insulation where suitable so as to guarantee maximum operator safety.
- Total segregation between the phases must be guaranteed for safety reasons.
- The main contacts must be separate from the arcing contacts in cat. B circuit-breakers only.
- It must be possible to inspect easily the arcing chambers easily and to check main contact wear with the circuit-breaker racked-out, by removing the arcing chambers.
- All the circuit-breakers in the range have the same height and depth with the aim of standardising the supporting structures of the switchgear and the switchgear itself as far as possible.
- The circuit-breakers must indicate the precise position of the main contacts and the condition of springs charged/discharged on the front, by means of certain and reliable signals.
- The operating mechanism must be of the stored energy type with operation by means of precharged springs fitted with anti-pumping device. The springs are charged manually by activating the front lever, or by means of a geared motor, supplied on request.
- The whole range of air circuit-breakers must be fitted with electronic protection releases. It must be allowed the interchangeability of protection releases from skilled personnel.
- ACBs shall have minimum watt losses in order to restrict temperature rise inside the breaker.

- The 4 pole ACB shall be with 100% neutral where ever specified. 50% neutral pole will not be acceptable.

2.2.3 RELEASES

1) Release (Protection functions)

- The release must not require auxiliary power supplies since the power is taken from the current transformers.
- The signals supplied by the release must not operate with power supply supplied by internal batteries. The basic version of the release must provide:
 - protection against overload with trip with inverse long-time delay (L)
 - protection against instantaneous short-circuit (I)
 - Selective short-circuit (S)
 - Earth fault (G)

2.2.4 The setting ranges shall be:

- Protection against overload (L) Characteristic $t=k/I^2$
- Trip threshold $I1= (0.4...1) \times I_n$ with timing adjustable from 3 to 144 sec. (value referred to a current equal to $3 \times I1$)
- Protection against selective short-circuit (S) Characteristics $t=k$ and $t=k/I^2$
- Trip threshold $I2= (1...10) \times I_n$ with timing adjustable from 0.1 to 0.8 sec.
- (value referred to a current equal to $10 \times I_n$ for curves at $t=k/I^2$ and referred to currents $>I2$ for curves at $t=K$)
- Protection against instantaneous short-circuit (I) Trip threshold $I3= (1,5...15) \times I_n$
- Protection against earth fault (G) Characteristics $t=k$ and $t=k/I^2$
- Trip threshold $I4= (0.2...1) \times I_n$ with timing adjustable from 0.1 to 0.8 sec. (value referred to a current equal to $4 \times I4$)
- Neutral protection level:
- 50% - 100% - 200% - excluded
- All the protection functions except protection against overload must be excludable User interface and signalling LEDs
- The release shall allow parameterisation of the trip thresholds and timing by means of dipswitches.
- alarm and trip signalling for all the protection functions by means of LEDs located on the release shall be available. No batteries or external power supplies shall be necessary for powering these indicators. The indication shall be available for not less than 48 hours after the trip, even with the circuit-breaker open
- An alarm shall indicate by means of LEDs located on the release the disconnection of opening solenoid and current transformers. A trip shall also occur, after a short time delay, when the disconnection is detected.
- It shall be possible, with the aid of external devices, to read currents, and information on last 10 trips (currents, protection tripped) occurred to the unit.

2.2.5 General aspects of MCCB with Thermal Base release

Standards conformity

Molded case circuit-breakers (MCCB) installed in the low voltage plant must be designed, manufactured and tested according with the international standards IEC 60947-1, IEC 60947-2, IEC 60947-3, IEC 60947-4-1, IEC 61000 or with the corresponding harmonized national standards, the

CE “Low Voltage Directives” (LVD) n° 73/23 EEC and “Electromagnetic Compatibility Directive” (EMC) n° 89/336 EEC.

2.40.1. Molded case circuit breakers functional features

- Rated insulation voltage (Ui) for MCCB shall be 690 V AC or more.
- Rated Impulse withstand voltage (Uimp) for mccb's shall be 8kV.
- Rated service voltage(Ue) for the moulded case circuit breaker shall be standard as 690V, however performance on short circuit level shall be consider based on system operating voltage.
- Rated uninterrupted current between varying from 160 and 800 A with trip units settings starting from 1 A
- Rated short circuit breaking capacity shall be considered as per bill of material and the rated service short circuit breaking capacity (Ics) shall be in 50-100% of rated ultimate short circuit breaking capacity (Icu).
- According to IEC 60947-2 (§ 4.4) starting from 400 A the circuit breakers must be category B, however other small rating category A shall be confirmed.
- MCCBs must be available with different ultimate short breaking capacities between 16kA and 200kA @ 380/415 V AC.
- Both line up and line down supplying must be possible without decreasing MCCBs performances or functionality
- MCCB shall confirm to current limiting type and this feature shall ensure less amount of let through energy at the time of opening on fault. The mccb shall have opening time less then 10msec for current rating upto 800A
- A test bottom for the correct functionality checking (moving contacts opening) must be place in front of the breaker.

2.40.2. Ambient characteristics

- Operating temperature: -25 °C .. +70 °C (ambient temperature)
- Storage temperature: -40 °C .. +70 °C (ambient temperature)
- Reference temperature for setting the thermal element of the thermo magnetic trip unit: +40 °C
- Maximum relative humidity: 98%
- Maximum altitude: 2000 m above sea level, 5000 m above sea level with derating
- Suitability for being used in hot-humid places.

2.2.6 Construction characteristics

- The range of moulded case circuit-breakers must cover a range of rated uninterrupted currents from 160 to 800 A.
- By means of the double insulation technique, moulded case circuit-breakers must guarantee complete separation between the power circuits and the auxiliary circuits.
- Moulded case circuit-breakers must have an operating lever which always indicates the exact position of the circuit-breaker contacts (positive operation), by means of safe and reliable signals (I= closed, O= open, yellow-green line= open due to trip unit).
- Moulded case circuit-breakers must be suitable for isolation in compliance with § 7.2.7 of the IEC 60947-2 Standard. This indication must be clearly and indelibly marked on the circuit-breaker (in accordance with § 5.2 of IEC 60947-2) and in a position where it is visible with the circuit-breaker installed.
- Moulded case circuit-breakers with rated uninterrupted current up to 250 A shall have a 45

mm high face which makes them suitable for installation on modular panels.

- For the front parts of the circuit-breakers the degree of protection of at least IP20 (excluding the terminals) must be guaranteed.

2.2.7 Protection trip units

2.2.7.1 Thermomagnetic overcurrent trip units

- Thermomagnetic trip units shall be fitted with protection threshold against overload (whose thermal element must consist of a bimetal) and with protection threshold against short circuit.
- The protection threshold against overload must be continuously adjustable starting from 0.7 times the rated current of the trip unit and up to its rated value.
- The reference temperature for setting the thermal element of the protection trip unit is 40°C. The temperature performance of the trip unit must be indicated as the temperature varies.
- The protection threshold against short-circuit can be either the fixed or adjustable type with continuity from 5 and up to 10 times the rated current of the trip unit. For current rating upto 250Amps, magnetic threshold be minimum of 10 times of rated current.

2.2.7.2 Magnetic only overcurrent trip units

- The overcurrent trip units with magnetic only threshold shall be suitable for protection against short-circuit.
- The adjustable magnetic only trip units (suitable for motor protection) shall only be available in the three-pole version, whereas those with fixed threshold shall also be available in the four-pole version.
- The adjustable magnetic only trip units must be available for circuit-breakers up to 250 A with an upper magnetic threshold equal to $I_m = 3I_n$

OR

2.2.7.3 General aspects of MCCB with microprocessor-based release

Standards conformity

Molded case circuit-breakers (MCCB) installed in the low voltage plant must be designed, manufactured and tested according with the international standards IEC 60947-1, IEC 60947-2, IEC 60947-3, IEC 60947- 4-1, IEC 61000 or with the corresponding harmonized national standards, the CE "Low Voltage Directives" (LVD) n° 73/23 EEC and "Electromagnetic Compatibility Directive" (EMC) n° 89/336 EEC.

2.2.7.4 Molded case circuit breakers functional features

- Rated insulation voltage (U_i) for MCCB shall be 800 VAC or more.
- Rated Impulse withstand voltage (U_{imp}) for mccb's shall be 8kV.
- Rated service voltage(U_e) for the moulded case circuit breaker shall be standard as 690V, however performance on short circuit level shall be consider based on system operating voltage.
- Rated uninterrupted current between varying from 160 and 3200 A with trip units settings starting from 10A
- Rated short circuit breaking capacity shall be considered as per bill of material and the rated

service short circuit breaking capacity (Ics) shall be in 100% of rated ultimate short circuit breaking capacity (Icu). (Ics=Icu)

- According to IEC 60947-2 (§ 4.4) starting from 400 A the circuit breakers must be category B, however other small rating category A shall be confirmed.
- MCCBs must be available with different ultimate short breaking capacities between 16kA and 200kA @ 380/415 V AC.
- Both line up and line down supplying must be possible without decreasing MCCBs performances or functionality
- MCCB shall confirm to current limiting type and this feature shall ensure less amount of let through energy at the time of opening on fault. The mccb shall have opening time less than 10msec for current rating upto 630A, and less than 15msec for current rating upto 1600Amps.
- A test bottom for the correct functionality checking (moving contacts opening) must be placed in front of the breaker.

2.2.7.5 Ambient characteristics

- Operating temperature: -25 °C . +70 °C (ambient temperature)
- Storage temperature: -40 °C .. +70 °C (ambient temperature)
- Maximum relative humidity: 98%
- Maximum altitude: 2000 m above sea level, 5000 m above sea level with derating
- Suitability for being used in hot-humid places.
- Circuit-breakers fitted with electronic trip units must comply with the prescriptions of the International Standards on electromagnetic compatibility.

2.2.7.6 Construction characteristics

- The range of moulded case circuit-breakers must cover a range of rated uninterrupted currents from 160 to 3200 A.
- By means of the double insulation technique, moulded case circuit-breakers must guarantee complete separation between the power circuits and the auxiliary circuits.
- Moulded case circuit-breakers must have an operating lever which always indicates the exact position of the circuit-breaker contacts (positive operation), by means of safe and reliable signals (I= closed, O= open, yellow-green line= open due to trip unit).
- Moulded case circuit-breakers must be suitable for isolation in compliance with § 7.2.7 of the IEC 60947-2 Standard. This indication must be clearly and indelibly marked on the circuit-breaker (in accordance with § 5.2 of IEC 60947-2) and in a position where it is visible with the circuit-breaker installed.
- Moulded case circuit-breakers with rated uninterrupted current up to 250 A shall have a 45mm high face which makes them suitable for installation on modular panels.
- The same depth must be guaranteed from 320 A up to 1000 A, in order to standardize both switchboards and their supports.
- All the installation positions must be possible without jeopardizing the function of the apparatus. Starting from 630 A up to 1600 A the withdrawable version shall be mounted and operated horizontally.
- For the front parts of the circuit-breakers the degree of protection of at least IP20 (excluding the terminals) must be guaranteed.

2.2.7.7 Protection trip units

- From the 250 A size circuit-breakers, the trip unit must be interchangeable. Electronic

- overcurrent releases
- The electronic overcurrent trip units must be self-supplied and must be able to guarantee correct operation of the protection functions even in the presence of a single phase supplied with a current value equal to 20% of the phase current.
- They must be unaffected by electromagnetic interference in compliance with the EMC directive on the matter.
- The basic version shall be fitted with protection functions against overload (function L) and against short-circuit. The latter function can either be of the instantaneous type (function I) or, alternatively, with intentional delay (function S). The function of protection against short circuit must be excludable. A basic version shall also be provided with only the protection threshold against instantaneous short-circuit which cannot be excluded.
- The minimum performances of the protection functions of the electronic protection trip unit for distribution, where present, must be:
 - I. Function **L**: adjustable trip threshold $I_{1n} = (0.4...1) \times I_n$, trip curves for the basic version with times from 3 to 12 seconds – 2 different trip curves - (at 6 times the set threshold). Cannot be excluded.
 - II. Function **S**: adjustable trip threshold $I_{2n} = (1...10) \times I_n$, trip curves for the basic version with times from 0.1 to 0.25 seconds – 2 different trip curves – (at 8 times the rated current of the trip unit. Can be excluded.
 - III. Function **I**: adjustable trip threshold $I_{3n} = (1...10) \times I_n$ for the basic version (instantaneous trip). Can be excluded.
- All the protection functions must be characterized by threshold and time tolerances according to the International Standards.
- The size of the current sensors must be a minimum of 10 A to a maximum of 3200 A so as to cover the widest possible current range.
- The LT and HT Switchgear used in the Package Substation should be of same make.

2.3 TYPE / ROUTINE TEST ON PACKAGE SUBSTATION

2.3.1 TYPE TESTS FOR THE PACKAGE SUBSTATION:

2.42.1. The Package Substations offered must be type tested as per IEC 61330/62271-202. The copy of type test summary should be submitted along with the tender. CSS manufactured in JV consortium shall not be accepted.

2.42.2. **Routine Tests:** The routine tests shall be made on each complete prefabricated substation.

- a) Voltage tests on auxiliary circuit.
- b) Functional test.
- c) Verification of complete wiring.

2.42.3. **Test Witness:** Routine test shall be performed in presence of USCL's representative if

so desired by the USCL. The Contractor shall give at least fifteen (15) days advance notice of the date when the tests are to be carried out.

2.3.2 Test Certificates:

Certified reports of all the tests carried out at the works shall be furnished in three (3) copies for approval of the Owner.

2.3.2.1 Performance Certificate to Qualify Technical Bid:

2.3.2.1.1 Packaged Substation Enclosure:

- Tests to verify the degree of protection.
- Arcing due to internal fault
- Test to prove enclosure class - Temperature rise of the transformer inside the enclosure.
- Short circuit test to prove the capability of the earthing circuits to be subjected to the rated peak and the rated short time withstand currents.
- Tests to verify the withstand of the enclosure of the prefabricated substation against mechanical stress.

2.3.2.2 TECHNICAL SPECIFICATION FOR 11 kV XLPE 3 CORE UG CABLE

2.3.2.2.1 SCOPE:

The scope of this specification covers the design, manufacture, stage inspection at works, inspection and testing the finished 11 kV Three Core, stranded, compact circular, Aluminum, water blocked conductor, conductor screened with extruded semiconducting compound, water tree retardant (TR) XLPE insulated, insulation screened with extruded semi conducting compound with copper as metallic part, dry cured & dry cooled using triple extrusion through common triple cross head (single point triple extrusion), in combination with water blocking tape , cores laid up with non-hygroscopic fillers including Centre filler, PVC ST2 inner sheathed, , galvanized steel strip/GI wire armored and overall black PE ST 7 sheathed cable conforming to IS:7098 (Part-2) 1985/IEC with latest amendments and as per specification detailed.

2.3.2.2.2 RATED VOLTAGE:

The rated voltage of the cable shall be 11 kV AC with the highest system voltage of 12 kV between phases of the effectively earthed three-phase transmission system.

2.3.2.2.3 APPLICABLE STANDARDS:

Unless otherwise stipulated in the specifications, the latest version of the following Standards shall be applicable:

- IS 7098 (Part 2) – Cross-linked Polyethylene (XLPE) insulation for Cables
- IS 8130 – Conductors for insulated electrical cables and flexible cords
- IS 10810 (series) – Methods of tests for cables
- IEC 60502-2 for properties of PE ST 7
- IS 3975-Specification for mild steel wires, strips and tapes for armouring of cables

- IS 5831 – Specification for PVC insulation sheath for electric cables
- IS 10462 – Fictitious calculation method for determination of dimensions of protective coverings of cables Part 1 - Elastomeric and thermoplastic insulated cables

2.3.2.2.4 CONSTRUCTION:

4.0 **Conductor:** The cable conductor shall be made from H2 Grade Aluminum to form compacted stranded circular conductor having resistance within the limits specified in IS: 8130/1984 and any amendment thereof. The wires shall be laid up together with a suitable right hand lay.

The conductor shall be water blocked using semi conducting **water swellable** tape over compacted conductor and shall pass the water penetration test as per IEC-60502-2.

4.1 **Conductor Screen:** The conductor screen shall be extruded semiconductor XLPE, extruded by triple extrusion method in the same operation as along with the insulation and insulation screen., the IS: 7098 Part 2, The semiconductor shall be suitable for operating temperature of the cable and shall be compatible with the insulation.

4.2 **Insulation:** The insulation shall be water Tree Retardant (TR) Cross Linked Polyethylene (XLPE) insulation applied by extrusion and shall conform to the following requirements:

<u>S. No.</u>	<u>Properties</u>	<u>Requirements</u>
1.	Tensile Strength	12.5N/mm ² , Min.
2.	Elongation to break	200 percent, Min
3.	Aging in air oven:	
	d) Treatment: Temperature:	135 ±3°C
	Duration:	7 days
	e) Tensile Strength variation:	±25 percent, Max
	f) Elongation variation:	±25 percent, Max
4.	Hot set:	
	d) Treatment: Temperature:	200±3°C
	Time under load	15 min
	Mechanical stress	20N/cm ²
	e) Elongation under load	175 percent, Max
	Permanent elongation (set)	

	f)	after cooling	15 percent, Max
5.	Shrinkage:		
	b)	Treatment: Temperature	130±3°C
		Duration	1 hour
	b)	Shrinkage	4 percent, Max
6.	Water absorption		
	(Gravimetric):		85±2°C
	c)	Treatment: Temperature:	14 days
		Duration:	1 mg/cm ² , Max
	d)	Water absorbed	
7.	Volume Resistivity		
	c)	at 27°C	1x10 ¹⁴ ohm-cm, Min
	d)	at 90°C	1x10 ¹² ohm-cm, Min
8.	Thermal Resistivity		350 degrees C cm/W
9.	Power factor at maximum conductor temperature		0.008
10.	Dielectric strength		22 kV/mm

4.3 The XLPE insulation should be suitable for specified system voltage. The extrusion should be a True triple extrusion with thickness and concentricity control of all the three layers.

4.4 The curing process of XLPE insulation should be dry cured and dry cooled. The manufacturing process shall ensure that insulations shall be free from voids. Minimum degree of crosslinking shall be 75%.

4.5 The insulation shall withstand mechanical and thermal stresses under steady state and transient operating conditions.

4.6 The extrusion method should give very smooth interface between semi-conducting screen and insulation.

4.7 The insulation of the cable shall be compatible with the continuous conductor temperature of 90°C, short time overload temperature of 130°C & short circuit temperature of 250°C.

4.8 The average thickness of the insulation shall not be less than as specified in IS: 7098-II. The

insulation shall be so applied that it fits closely on conductor screening and it shall be possible to remove it without damaging the conductor.

4.9 The eccentricity of the insulation shall be less than 10% and ovality shall be less than 5%.

1. **Insulation Screen:** To confine electrical field to the insulation, semi-conducting XLPE shield shall be put over the insulation. The insulation shield shall be extruded in the same operation as the conductor shield and the insulation by triple extrusion and shall be as IS: 7098 Part 2, Copper Tape of 10% Overlap, water blocking tape shall be applied over the semiconducting compound.

2. **Inner Sheath:** The sheath shall be extruded PVC Type ST2, suitable to withstand the site conditions and the desired temperature. It should be of adequate thickness as specified in IS: 7098-II, consistent quality and free from all defects.

Armour: Armoring shall be applied over the inner sheath with single galvanized steel flat strips / GI Wires complying with the requirements of IS: 3975/1979 for 3- Core Cables

Minimum armour coverage shall be 90%. A joint in any wire shall be at least 300 mm from the nearest joint in any other armour wire in the complete cable and shall be as per IS: 7098 Part 2, IS: 3975, IEC:60502 Part – 2, BS: 6622, BS: 7835.

Outer Sheath: Extruded HDPE ST-7 outer sheath as per IEC 60502-2, for HV cables. The outer sheath shall be applied over armoring with suitable additives to prevent attack by rodents and termites. Outer sheathing shall be designed to offer high degree of mechanical protection and shall also be heat, oils, chemicals, abrasion and weather resistant. Common acids, alkalis, saline solutions etc., shall not have adverse effects on the sheathing material used.

The underground cables shall be manufactured to the highest quality, best workmanship with scientific material management and quality control. The manufacturer shall furnish the quality plan, giving in detail the quality control procedure/ management system.

The cable shall be suitable for laying in covered trenches and/or buried underground to meet the outdoor application purposes.

2.3.3 DESIGN CRITERIA:

- I. The cables that are covered in these specifications are intended for use outdoor, under the climatic conditions and installation conditions described in the technical specification.
- II. Any technical feature, not specifically mentioned here, but is necessary, for the good performance of the product, shall be incorporated in the design. Such features shall be clearly brought out under Technical deviations schedule only, in the offer made by the bidder, giving technical reasons, and justifying the need to incorporate these features.
- III. For continuous operation of the cables, at specified rating, the maximum conductor temperature shall be limited to the permissible value as per the relevant standard, generally not exceeding 90°C under normal operation and 250°C under short – circuit conditions.
- IV. The materials used for outer sheaths shall be resistant to oils, acids and alkalis.

- V. The cables shall have the mechanical strength required, during handling and laying.
- VI. The cables shall be designed to withstand the thermo-mechanical forces and electrical stresses during normal operation and transient conditions.

2.4 LED STREET LIGHT LUMINAIRES:

2.4.1 CODES & STANDARDS: -

- IEC 60529 Classification of degree of protections provided by enclosures (IP Codes)
- EN 55015 / CISPR15 Limits and methods of measurement of radio disturbance characteristic of electrical lighting and similar equipment.
- IEC 62031 LED modules for general lighting-Safety requirements
- EN 61547 Equipment for general lighting purposes–EMC immunity requirement.
- IEC 60598-Part-2, Sec-3, Luminaires for road and street lighting.
- IEC 60598-2-1 Fixed general-purpose luminaires
- IEC 60598-1 Luminaires - General requirement and tests
- IEC 61000-3-2 Electro Magnetic compatibility (EMC)- Limits for Harmonic current emission — (equipment input current ≤ 16 A per phase.
- IEC 60068-2-38 Environmental Testing: Test Z- AD: composite temperature/ humidity cyclic test
- IEC 61347-2-13 Lamp control gear: particular requirements for DC or AC supplied electronic control gear for LED modules.
- IS 10322 Specification for the luminaires
- LM 79 LED luminaire photometry measurement.
- LM 80 Lumen Maintenance
- IEC 62384 DC or AC supplied electronic control gear for LED modules performance requirements.
- RoHS (Reduction of Hazardous Substances)
- IEC 61347-1 ed. 2.0 for Lamp control gear - Part 1: General and safety requirements
- IEC 61000-4-5 Electromagnetic Compatibility (EMC) – Surge Immunity Test.
- IS 1944, IS 13383, IS 16103, IS 16105, IS 16106, IS 16102

2.4.2 ELECTRONIC COMPONENTS: -

The electronic components used shall be as follows:

- a. IC (Integrated Circuit) shall be of industrial grade.
- b. The resistors shall be preferably made of metal film of adequate rating.
- c. The conformal coating used on PCBs should be cleared and transparent and should not affect colour code of electronic components or the product code of the company.
- d. The heavy components shall be properly fixed. The solder connection should be with good finish.
- e. The infrastructure for Quality Assurance facilities as called for in the Specification shall be available for the manufacturing of this product. The compliance shall be indicated clearly in the tender itself.

2.4.3 LED MODULES: -

ANSI rated LEDs from reputed makes such as LG/ Nichia, Japan / Cree, USA / Bridgelux, USA / Lumiled USA / Osram/Citizen Japan / Philips should be provided.

LEDs shall have optical grade polycarbonate / PMMA lens to provide street light distribution. LED optical lens should be mechanically fixed to MCPCB and should not be fixed by glue. Individual or cluster of LEDs should be provided with Optical Grade Polycarbonate lens with street light optical distribution.

The LED shall be compliant with LM80-08 standard.

Useful L70 life of 50000 Hrs with 70% lumen maintenance at 35 deg. C ambient temperature. (Complete LM 80 test report for LED should be submitted).

LED Type: High power SMD LED. Power of each LED: 1W or more Compliance: RoHS

LED lumen output: The output of LED shall be at least 140 lumen per watt.

2.4.4 INGRESS PROTECTION: -

- 1) Ingress protection should be IP 66. The fixture should have double-wall construction with silicone gasket designed for IP66 without using any glue to prevent breakdown of the water and dust proof seal for both the LED & the driver compartments.
- 2) The Fixture light output (lux) shall be constant. The voltage variations / fluctuations in the specified voltage range shall not impinge upon the lux levels it produces. Maximum +/-2% is allowed throughout the input voltage range.
- 3) CURRENT: - The LEDs shall be driven at 0.5A to 1A.
- 4) FIXTURE EFFICACY: > or = 100 Lum/watt.
- 5) CCT: -4500K to 5500K
- 6) CRI: - Minimum 70.
- 7) OPERATING VOLTAGE: - 140V to 270V ac

8) OPERATING TEMPERATURE: - 0 Deg. C to 50 Deg. C 12. P.F:-> **0.9**

9) DRIVER

10) Isolated type, multistage Constant Current Constant Voltage topology driver suitable to operate in input voltage range of 140V to 270V (nominal rated voltage – 240V) with minimum 3KV surge protection, Power factor greater than 0.9 and total harmonic distortion (THD) of less than 20% should be integral to the luminaire. Short Circuit protection should be such that it recovers automatically after fault condition is removed.

11) **SURGE PROTECTION:** - Internal Surge protection \geq 3KV with an External surge protection of 10KV (DM / CM) should be put in the Luminaire to ensure protection against surge arising from power line.

12) **TEMPERATURE RISE:** -The fixture body temperature shall not exceed 30 Deg. C from ambient even after continuous operation for 24 hrs.

13) The fixture shall work on single phase three wire system (phase, neutral & earth).

14) The maximum tolerance in wattage of fixture will be within the wattage range mentioned in the item schedule.

2.4.5 SWITCHING PANEL:

A standalone unit to be placed at feeder level containing Cluster Energy Meter, Relay Controller Unit along with MCB.

Enclosure should be made of MS Galvanized powder coated or SMC material with IP 65 and shall have proper lock arrangement.

It shall be protected by an MCB at its AC mains input. Lamp load connection shall be through an output MCB.

Separate Chamber for Input/output MCB and Change over Circuit for maintenance and manual operation. Door open detection provision, even in case of power failure.

It should be complete with all required switching and protecting devices, contactors, timers, relays, wiring, pipe earthing, surge protection device, required software, web server, hosting, etc.

All switchgear shall be tested at site as per the manufacturer's recommendations and shall include the minimum following tests:

- Visual inspection for dimensional check-up, completeness of the equipment as per the manufacturer's documents, furnishing the list of missing components, if any, tightness of all the terminals/equipment, etc.
- Measuring I.R. value before and after High voltage test.
- High voltage test.
- Testing of protective relays with primary and secondary injection test, wherever applicable.
- Simulation test for all the interlocks, annunciations and for the correct operations of the

switchgear.

- Testing of oil for dielectric strength, wherever applicable.
- Any other tests as recommended by Site Engineers/ Site –in-Charge.
- All the switchgears shall be cleaned with vacuum cleaners before commissioning.
- Plugging/ Sealing of all the unused cut outs for the cable glands in the equipment.
- All panels shall be double earthed with two separate earthing pits.

2.5 APPROVED MAKES:

Sr. No.	Items	Make
1.	Horizontal Centrifugal Pumps	CRI / Equivalent
2.	Vertical Centrifugal Multistage Pumps	CRI/ Equivalent
3.	Pressure Vessels	Pentair / Equivalent
4.	Pressure Gauges	Baumer / Equivalent
5.	Pressure Switch	Aster / Equivalent
6.	Rota meter/Flowmeter	Aster / Equivalent
7.	Dosing Pumps	E dose / Equivalent
8.	Dosing Tanks	Hitank / Equivalent
9.	UV System	Alpha/ Equivalent
10.	RO membranes	LG/ Equivalent
11.	Pressure Tubes	UKL / Equivalent
12.	Cartridge Filter	Process Engineer / Equivalent
13.	Conductivity Meter/pH meter	Aster / Equivalent
14.	Level Switch	Aster / Equivalent
15.	Solenoid Valve	Aira / Equivalent
16.	MPV	Initiative Engg./Equivalent
17.	UPVC	Astral/Equivalent
18.	Valves & Fittings	EFL/ Equivalent
19.	Control Panel	Embark/Equivalent
20.	Media-	EFL/ Equivalent

1. LED Street lighting fixtures	Philips / Bajaj / Keselec / Wipro / Havells /GE Lighting / Crompton Greaves / HPL / Disano / Neri/Klite or Any other national or multinational & internationally reputed brand with good presence in India, upon prior approval by USCL Engineer In charge/Consulting engr.
2. Poles and brackets	Bajaj / Valmont / Transrail / Keselec /Mayfaire/Energy Green/Klite
3. XLPE INSULATED Cables	Polycab / Finolex / Havells / RR / Ravin/ RPG
4. Switch gear, timer, contactor etc for Street Lighting Switching Panel	L&T/ ABB/Siemens / Schneider MG /Legrand

5. Power factor Improvement Capacitors and APFC relays	EPCOS / Unistar/ Neptune / Shreem
6. HDPE DWC pipes	Jemmini/Duraline
7.G.I. Pipes (ISI Marked)	TATA, SWASTIK, JINDAL
8.Cable Glands	COMET BRASS COMEX, COSMOS, JAINSONS
9.Cable Lugs & Sockets	DOWELLS, HEX, JAINSONS, COMET.

3 Payment System

1. Payment for works which have been quoted on percentage rate basis shall be as per R.A Bills (IPC Interim Payment Certificates) submitted and verified.
2. Payment Breakup for RO Plant: -
 - Supply of RO Plant at site- 50%
 - Installation & Commissioning of RO Plant- 30%
 - During O&M period – Remaining 20% amount shall be paid on quarterly basis.
3. O&M payment for 1 year from physical completion certificate issued by USCL shall be in scope of Bidder. No Additional payment shall be made for the same.

Anything not covered in the above specifications, will be governed by: --

1. **MPUADD Specifications:** (The soft copy of the specifications is available at departmental website <http://www.mpurban.gov.in/StandardSchedule.asp>)
2. **MPPKVVCOLTD SPECIFICATIONS FOR ELECTRICAL WORKS:** *The Provisions of General/ Special Conditions of Contract, those specified elsewhere in the bid document, as well as execution drawings and notes, or other specifications issued in writing by the employer shall form part of the technical specifications of this work*

Annexure-F
(See clause 3 of section 2-ITB)

PROCEDURE FOR PARTICIPATION IN E-TENDERING

1. Bidder should do Online Enrolment in this Portal using the option Click Here to Enroll available in the Home Page. Then the Digital Signature enrolment has to be done with the e-token, after logging into the portal. The e-token may be obtained from one of the authorized Certifying Authorities such as MudhraCA/ GNFC/IDRBT/ Mtnl Trust line / SafeScript/TCS.
2. Bidder then logs into the portal giving user id / password chosen during enrolment.
3. The e-token that is registered should be used by the bidder and should not be misused by others.
4. DSC once mapped to an account cannot be remapped to any other account. It can only be Inactivated.
5. The Bidders can update well in advance, the documents such as certificates, purchase order details etc., under My Documents option and these can be selected as per tender requirements and then attached along with bid documents during bid submission. This will ensure lesser upload of bid documents.
6. After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as per the tender document, otherwise, the bid will be rejected.
7. The BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for that tender. Bidders are allowed to enter the Bidder Name and Values only.
8. If there are any clarifications, this may be obtained online through the eProcurement Portal, or through the contact details given in the tender document. Bidder should take into account of the corrigendum published before submitting the bids online.
9. Bidder, in advance, should prepare the bid documents to be submitted as indicated in the tender schedule and they should be in PDF/XLS/RAR/DWF formats. If there is more than one document, they can be clubbed together.
10. Bidder should arrange for the EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission date and time for the tender.
11. The bidder reads the terms and conditions and accepts the same to proceed further to submit the bids
12. The bidder has to submit the tender document(s) online well in advance before the prescribed time to avoid any delay or problem during the bid submission process.
13. There is no limit on the size of the file uploaded at the server end. However, the upload is decided on the Memory available at the Client System as well as the Network bandwidth available at the client side at that point of time. In order to reduce the file size, bidders are suggested to scan the documents in 75-100 DPI so that the clarity is maintained and also the size of file also gets reduced. This will help in quick uploading even at very low bandwidth speeds.

14. It is important to note that, the bidder has to Click on the Freeze Bid Button, to ensure that he/she completes the Bid Submission Process. Bids Which are not Frozen are considered as Incomplete/Invalid bids and are not considered for evaluation purposes.
15. ~~In case of Offline payments, the details of the Earnest Money Deposit (EMD) document submitted physically to the Department and the scanned copies furnished at the time of bid submission online should be the same otherwise the Tender will be summarily rejected~~
16. The Tender Inviting Authority (TIA) will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders due to local issues.
17. The bidder may submit the bid documents online mode only, through this portal. Offline documents will not be handled through this system.
18. At the time of freezing the bid, the eProcurement system will give a successful bid up- dation message after uploading all the bid documents submitted and then a bid summary will be shown with the bid no, date & time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed using the e-token of the bidder and then submitted.
19. After the bid submission, the bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening event.
20. Successful bid submission from the system means, the bids as uploaded by the bidder is received and stored in the system. System does not certify for its correctness.
21. The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected
22. The time that is displayed from the server clock at the top of the tender Portal, will be valid for all actions of requesting bid submission, bid opening etc., in the e- Procurement portal. The Time followed in this portal is as per Indian Standard Time (IST) which is GMT+5:30. The bidders should adhere to this time during bid submission.
23. All the data being entered by the bidders would be encrypted at the client end, and the software uses PKI encryption techniques to ensure the secrecy of the data. The data entered will not be viewable by unauthorized persons during bid submission and not viewable by any one until the time of bid opening. Overall, the submitted bid documents become readable only after the tender opening by the authorized individual.
24. During transmission of bid document, the confidentiality of the bids is maintained since the data is transferred over secured Socket Layer (SSL) with 256 bit encryption technology. Data encryption of sensitive fields is also done.
25. The bidders are requested to submit the bids through online eProcurements system to the TIA well before the bid submission end date and time (as per Server System Clock).

Annexure — G
(See clause 4 of Section 2 -ITB)

JOINT VENTURE (J.V.)

If J.V. is allowed following conditions and requirements must be fulfilled—

- ~~a. one of the partners shall be nominated as being Lead Partner, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners.~~
 - ~~b. the bid and, in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all partners;~~
 - ~~c. the partner in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint venture and the entire execution of the contract, including payment, shall be done exclusively with the partner in charge.~~
 - ~~d. all partners of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under[c] of above, as well as in the bid and in the Agreement in case of a successful bid];~~
 - ~~e. The joint venture agreement should indicate precisely the role of all members of JV in respect of planning, design, construction equipment key personnel, work execution, and financing of the project. All members of JV should have active participation in execution during the currency of the contract. This should not be varied/modified subsequently without prior approval of the employer;~~
 - ~~f. The joint venture agreement should be registered, so as to be legally valid and binding on all partners and~~
 - ~~g. a copy of the joint Venture Agreement entered into by the partners shall be submitted with the bid.~~
- ~~2. The figures for each of the partners of a joint venture shall be added together to determine the Bidder's compliance with the minimum qualifying criteria required for the bid. All the partners collectively must meet the criteria specified in full. Failure to comply with this requirement will result in rejection of the joint venture's bid.~~
 - ~~3. The performance security of a joint venture shall be in the name of the partner Lead Partner/joint venture.~~
 - ~~4. Attach the power of attorney of the partners authorizing the Bid signatory(ies) On behalf of the joint venture~~
 - ~~5. Attach the agreement among all partners of the joint venture [and which is legally binding on all partners], which shows the requirements as indicted in the Instructions to Bidders'.~~
 - ~~6. Furnish details of participation proposed in the joint venture as below:~~

DETAILS OF PARTICIPATION IN THE JOINT VENTURE

PARTICIPATION DETAILS	FIRM 'A' (Lead Partner)	FIRM 'B'	FIRM 'C'
Financial			

Name of the Banker(s)			
Planning			
construction Equipment			
Key Personnel			
Execution of Work (Give details on contribution of each)			

7. The partners of J.V. should satisfy the qualification, criteria as below³:-

- i) The lead Partner must have a share of minimum 51% in the J.V
 - ii) the other partene(s) must have a share of minimum 26% in the J.V
 - iii) The lead partner and the other partner must also meet 51% and 26% of the all qualification criteria respectively except for the requirement of work experience described in Annexure I-1(A). However, both the partners must satisfy the full {100%} qualification criteria jointly. For this purpose the qualification of individual partners shall be added { For Annual Average Turn Over and for Bid Capacity Only }.
 - iv) Following clarification/amendment is hereby done in requirement contained in Annexure I-1(A) for J.V.
 - (iv) Out of 3 Similar Work of value more than 20% of PAC at least 2 Works must be done by lead partner and one Work to be done by the other partner.
 - (v) Out of 2 Similar Work of Value more than 30% of PAC, at least (One) work must be done by lead partner and 1 (One) Work is done by other partner, OR
 - (vi) In case of One similar work of value more than 50% of PAC the lead partner must satisfy the criteria. However the other partner satisfy the criteria in (i) above i.e at least one work of 20% of PAC
8. For the meeting the minimum qualification criteria of experience of similar nature work. Every partner can have experience of different works as defined in similar nature works and together should have the experience of all type of works described in similar nature works.

³ Øekad,Q&53@15@2012@19@;ks@2636&37Hkksikyfnuakd19-05-2015issued
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by¼4,I-ds-

Annexure-H

(See clause 12 of Section 2 —ITB & clause 4 of GCC)

**ORGANIZATIONAL DETAILS
(To be contained in Envelope- A)**

S.No.	Particulars	Details
1	Registration number issued by Centralized Registration System of Govt. of M.P. or Proof of application for registration.	‘(If applicable, scanned copy of proof of application for registration to be uploaded)
1a	MSME Registration	No. ____Date____(Scanned copy of Registration to be uploaded)
2	Valid Registration of bidder in appropriate class through Centralized Registration of Govt. of MP	Registration No. ____Date____(Scanned copy of Registration to be uploaded)
3	Name of Organization/ Individual/ Proprietary Firm/Partnership Firm	
4	Entity of Organization Individual/ Proprietary Firm/ Partnership Firm (Registered under Partnership Act)/Limited Company (Registered under the Companies Act—1956)/ Corporation / Joint Venture	
5	Address of Communication	
6	Telephone Number with STD Code	
7	Fax Number with STD Code	
8	Mobile Number	
9	E-mail Address for all communications	
	Details of Authorized Representative	
10	Name	
11	Designation	
12	Postal Address	
13	Telephone Number with STD Code	
14	Fax Number with STD Code	
15	Mobile Number	
16	E-mail Address	
17	PAN Number	
18	GST Number	

Note: In case of partnership firm and limited company certified copy of partnership deed/ Articles of Association and Memorandum of Association along with registration certificate of the company shall have to be enclosed.

Signature of Bidder with Seal

Date: _____

Annexure —I
See clause 14 of Section 2 -ITB)

Envelope — B, Technical Proposal
Technical Proposal shall comprise the following documents:

S. No.	Particulars	Details to be submitted
1	Experience — Financial & Physical	Annexure - I (Format: I-1)
2	Annual Turnover	Annexure - I (Format: I-2)
3	List of technical personnel for the key positions	Annexure - I (Format: I-3)
4	List of Key equipment/ machines for quality control labs	Annexure - I (Format: I-4)
5	List of Key equipment/ machines for construction work	Annexure - I (Format: I-5)

Note:

1. *Technical Proposal should be uploaded duly page numbered and indexed.*
2. *Technical Proposal uploaded otherwise will not be considered.*

Annexure - I (Format: I-1)
(See clause 14 of Section 2 ITB)

FINANCIAL & PHYSICAL EXPERIENCE DETAILS

Not applicable.

A. Financial Requirement:

The bidder (In Case it is a single Entity (Not JV)) should have completed either of the below:

- a) ~~three similar works~~ each costing not less than the amount ~~equal to 20% of the probable amount~~ of contract during the ~~last 5 years; or~~
- b) ~~two similar works~~ each costing not less than the amount ~~equal to 30% of probable amount~~ of contract during the last ~~5 years; or~~
- c) ~~one similar work~~ of aggregate cost not less than the amount ~~equal to 50% of the probable amount~~ of contract in ~~the last 5 years;~~

In Case of JV:

- (i) ~~Out of 3 Similar Work of value more than 20% of PAC at least 2 Works must be done by lead partner and one Work to be done by the other partner.~~
- (ii) ~~Out of 2 Similar Work of Value more than 30% of PAC, at least (One) work must be done by lead partner and 1 (One) Work is done by other partner, OR~~
- (iii) ~~In case of One similar work of value more than 50% of PAC the lead partner must satisfy the criteria. However the other partner satisfy the criteria in (i) above i.e at least one work of 20% of PAC~~

The partners of J.V. should satisfy the qualification, criteria as below⁴:-

- i) The lead Partner must have a share of minimum 51% in the J.V
- ii) the other partene(s) must have a share of minimum 26% in the J.V
- iii) The lead partner and the other partner must also meet 51% and 26% of the all qualification criteria respectively except for the requirement of work experience described in Annexure-I-1(A) . However, both the partners must satisfy the full {100%} qualification criteria jointly. For this purpose the qualification of individual partners shall be added { For Annual Average Turn Over and for Bid Capacity Only }.

To be filled in by the contractor:

- i. ~~Details of successfully completed similar works shall be furnished in the following format~~
- ii. ~~Certificate duly signed by the employer shall also be enclosed for each completed similar work.~~

Agreement Number & Year	Name of Work	Date of Work Order	Date of Completion	Amount of Contract	Employer's Name and Address

⁴e/;izns'k 'kklu ykssd fuekZ.k foHkx ea=ky; Øekad ,Q&53@15@2012@19@;ks@2636&37 Hkksiky fnuakd 19-05-2015 izfr] izeq[k vfHk;ark] yksd fuekZ.k foHkx] Hkksiky

Existing commitments— (Value of 'C' for Bid Capacity formula)

Agreement Number & Year	Name of Work	Date of Work Order	Date of Completion	Amount of Contract	Amount of balance work	Employer's Name and Address

B. Physical Requirement:

Execution of similar items of work in any one financial year during the last 3 financial years should not be less than the minimum physical. Requirement fixed for the work.

S.No.	Particulars	Actual Quantity Executed (To be filled in by the contractor)		
		Year—1	Year—2	Year—3
	Physical qualification required	Yes		
1				

Note:

1. Certificate duly signed by the employer shall be enclosed for the actual quantity executed in any one year during the last 5 financial years,

2. Similar works: The similarity shall be based on the physical size, complexity, methods technology or other characteristics of main items of work viz, earth work, cement concrete, Reinforced cement concrete, brick masonry, stone masonry etc.

Annexure-I(Format: I-2)
(See douse 14 of Section 2 -ITB)

ANNUAL TURN OVER

Requirement:

Not applicable.

Average annual construction turnover on the construction works not less than 50% of the probable amount of contract during the last 3 financial years.

To be filled in by the contractor:

Financial Year Payments received for contracts in progress or completed

Financial Year	Payments received for contracts in progress or completed
1. 2023-2024	
2. 2022-2023	
3. 2021-2022	

Note:

- Annual turnover from construction should be certified by the Chartered Accountant.
- Audited Balance sheet including all related notes, and income statements for the above financial years as well as Income Tax Returns for the relevant years to be enclosed.

Bid Capacity

Not applicable.

Applicants who meet the minimum qualifying criteria in the evaluation as stated above are to be evaluated further for bid capacity as under:

Bid Capacity = $(1.5A \times B) - C$ and its should be more than PAC.

Where

A. = Maximum value of civil engineering works executed in any one year during the last five year (10% weightage per year shall be given to bring the value of work executed at present price level)

B = Proposed contract period in number of years prescribed for completion of the works (period up to 1 year shall be taken as one year),

C = Value at current price level of existing commitments and ongoing works to be completed in the next 'B' years.

FY	2021-22	2020-21	2019-20	2018-19	2017-18
MF	1.00	1.10	1.21	1.33	1.46

Bids shall be opened in order of their listing in one NIT. In case of bidder's participation in multiple tenders listed in ine NIT, his bid capacity shall be exhausted, if found L1, in order of tenders opened. Soon after bid capacity of a bidder has exhausted, his next bid shall not be opened⁵

⁵ Government order No 1595/2464/2015/19/Yo dated 20/03/2015 issued by Deputy Secretary PWD on Behalf og GoMP

Annexure - I (Format: I-3)
(See clause 14 of Section 2-ITB & Clause 6 of GCC)

List of Technical Personnel for the Key Positions⁶(to be referred for civil works)

The Contractor will have to appoint the following key personnel during the execution and entire contract period, apart from other key personnel and support staff as necessary.

SNo	Details	Required Nos.
1	Site Engineer with Degree/Diploma in Civil/Electrical Engineering having minimum 3 (for Degree holders) / 5 (for Diploma holders) years' experience	One

Penalty for non-deployment of above staff are as follows:

SNo	Details	Penalty to be computed on monthly basis
1	Site Engineer	Rs. 30,000/- p.m.

Note: -

1. Aforesaid personnel shall be deployed within the period starting from the date of award of contract as stipulated in the contract.
2. Approval of the superintending engineer about suitability of personnel shall be obtained before deployment.
3. The Bidder shall submit CVs of proposed personnel confirming eligibility, experience and suitability of the personnel for the project.

The Contractor shall fill the following format:

S. No	Key Positions	Qualifications	Age	Similar Work Experience	Total Work Experience	Name of Personnel	Key Position	Qualification	Similar Work Experience	Total Work Experience
1.										
2.										
3.										
4.										
5.										
6.										
7.										
Total										

Note:

1. Aforesaid personnel shall be deployed within the period starting from the date of award of contract as stipulated in the contract.
2. Approval of the superintending engineer about suitability of personnel shall be obtained before deployment.

Annexure-I(Format: I-4)
(See douse 14 of Section 2 -ITB)

Tentative List of Key Equipment's/ Machines for Quality Control Labs

Not applicable

			Available with the bidder	
S. No.	Name of Equipment/ Machinery	Quantity	Name of Equipment/ Machinery	Quantity
1	Set of I. S. sieves			
2	Atterberg Limit Apparatus			
3	Sand replacement Apparatus			
4	Crushing Strength Testing Machine			
5	Flexural Strength Testing Machine			
6	Compression Testing Machine, Capacity 50 tones.			
7	Aggregate Crushing value Apparatus			
8	Los Angeles Abrasion Machine			
9	Aggregate Impact Test Machine			
10	Concrete Batching Plant			
11	Length and Thickness Gauges			
12	Vicat apparatus for testing setting times			
13	Slump testing apparatus			
14	Needle & Plate Vibrator			
15	500gm, 10 Kg balances			
16	Length and Thickness Gauges.			
17	Electrical Oven			

Note:- Equipment's / machines will have to be provided at testing lab as per norms and instructions of EIC.

Note:- Please fill above column "Available with the bidder."

Annexure - I (Format : I-5)
(See clause 14 of Section 2-ITB)

List of Key Equipment's/ Machines for Construction Work (Only for civil works)

Not applicable

Bidders to arrange suggestive list of machinery as indicated below during project execution period and as per instructions of Engineer-in-Charge:

S.No	Equipment	Minimum Numbers Required
	General Equipment	
1	Front end Loader with Backhoe, adequate No and suitable capacity	1
2	Tractors with or without tankers/ trolleys.	1
3	Vibratory / Roller	
4	Double Drum Tandem roller for DLC Compection	
5	Computerized Batch mix plant	
6	Transit Truck Agitator	
7	Kerb Laying Machine	
8	Mechanical Roller	
9	D.G. Sets	
10	Total Station — Survey Equipment	
11	Concrete mixer with hopper	1
12	Crane	1
13	Steel centering shuttering and interlocking scaffolding	Sufficient Quantity
14	Construction site safety equipment	Sufficient Numbers for all Perosnnel
15	Erection equipment	Sufficient Numbers
16	Tools and tackles	Sufficient Numbers
17	First aid kit and equipment /doctor on call	1 Set / Monthly inspection by Doctor.
18	Firefighting equipment	1 Set
19	LED Wall Mounted Count Down Timer (For displaying Remaining Time of Project in Days : Hours : Minutes)	1 Number
20	CCTV with feed provision to Smart City ICCC for monitoring	Sufficient Numbers

The contractor shall arrange plants and machineries at site for execution of the work. Sufficient quantity of construction equipment shall have to be provided at site as per instructions of EIC.

Note: If required, the contractor may have to deploy more Equipments and Plants depending upon his Work Programme and Methodology, he/she has to ensure the same to complete the work in stipulated period.

Annexure — J
(See clause 14 of Section 2 -ITB)

FINANCIAL BID
(To Be Contained in Envelope-C)

NAME OF WORK _____

I/We hereby bid for the execution of the above work within the time specified at the **rate (in figures) _____ (in words) _____ percent below/ above or at par** based on the Bill of Quantities and item wise rates given therein in all respects and in accordance with the specifications, designs, drawings and instructions in writing in all respects in accordance with such conditions so far as applicable. I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking of materials, installation of tools and plant conditions effecting accommodation and movement of labour etc. required for the satisfactory execution of contract.

Should this bid be accepted, I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed- hereto so far as applicable, or in default thereof to forfeit and pay to the Ujjain Smart City Limited or his successors in office the sums of money mentioned in the said conditions.

Note:

- i. Only one rate of percentage above or below or at par based on the Bill of Quantities and item wise rates given therein shall be quoted.
- ii. Percentage shall be quoted in figures as well as in words. If any difference in figures and words is found lower of the two shall be taken as valid and correct rate. If the bidder is not ready to accept such valid and correct rate and declines to furnish performance -security and sign the agreement his earnest money deposit shall be forfeited.
- iii. In case the percentage "above" or "below" is not given by a bidder, his bid shall be treated as non-responsive.
- iv. All duties, taxes, and other levies except Goods and services tax (GST) are included in the rates (in case of Percentage Rate Bids)/ Lump sum offer (in case of Lump-sum Bids) quoted by the bidder.

Signature of Bidder
Name of Bidder

The above bid is hereby accepted by me on behalf of the Ujjain Smart City Limited dated the _____ day of _____ 20_____

Signature of Officer
by whom accepted

Annexure — K
(See clause 15 of Section 2 -ITB)

MATERIALS TO BE ISSUED BY THE DEPARTMENT

Not Applicable for this contract

Annexure—L
(See clause 21 of Section 2 -ITB)

LETTER OF ACCEPTANCE (LOA)

No. _____

Dated: _____

To,
M/s. _____
(Name and address of the contractor)

Subject: _____
(Name of the work as appearing in the bid for the. work)

Dear Sir(s),

Your bid for the work mentioned above has been accepted on behalf of the Ujjain Smart City Limited at your bided percentage _____ below/ above or at par the Bill of Quantities and item wise rates given therein.

You are requested to submit within 15 (Fifteen) days from the date of issue of this letter:

- a. The performance security/ performance guarantee of Rs. _____ (in-figures) (Rupees _____ in words only). The performance security shall be in the shape of term deposit receipt / bank guarantee of any nationalized / schedule commercial bank valid up to three months after the expiry of defects liability period.
- b. Sign the contract agreement.

Please note that the time allowed for carrying out the work as entered in the bid is _____ months including/ excluding rainy season, shall be reckoned from the date of signing the contract agreement.

Signing the contract agreement shall be reckoned as intimation to commencement of work and no separate letter for commencement of work is required. Therefore, after signing of the agreement, you are directed to contact the Engineer-in-charge for taking the possession of site and necessary instructions to start the work.

Yours Faithfully

Executive Director
Ujjain Smart City Limited

FORM OF BANK GUARANTEE

Performance Security/Additional Performance Security

The Executive Director,

Ujjain Smart City Limited

Ujjain

WHEREAS:

- A. _____ [name and address of contractor] (hereinafter called the "Contractor") and Ujjain Smart City Limited, _____, (hereinafter called the "Employer") have entered into an agreement (hereinafter called the "Agreement") for the Construction of **<Project name>** in the state of Madhya Pradesh on online percentage rate (the "percentage rate") basis, subject to and in accordance with the provisions of the Agreement.
- B. The Agreement requires the Contractor to furnish a Performance Security for due and faithful performance of its obligations, under and in accordance with the Agreement, during the {Construction Period/ Defects Liability Period and Maintenance Period} (as defined in the Agreement) in a sum of Rs..... cr. (Rupees crore) (the "Guarantee Amount").
- C. We, through our branch at (the "Bank") have agreed to furnish this bank guarantee (hereinafter called the "Guarantee") by way of Performance Security.

NOW, THEREFORE, the Bank hereby, unconditionally and irrevocably, guarantees and affirms as follows:

1. The Bank hereby unconditionally and irrevocably guarantees the due and faithful performance of the Contractor's obligations during the {Construction Period/ Defects Liability Period and Maintenance Period} under and in accordance with the Agreement, and agrees and undertakes to pay to the Employer, upon its mere first written demand, and without any demur, reservation, recourse, contest or protest, and without any reference to the Contractor, such sum or sums up to an aggregate sum of the Guarantee Amount as the Employer shall claim, without the Employer being required to prove or to show grounds or reasons for its demand and/or for the sum specified therein.
2. A letter from the Employer, under the hand of an officer not below the rank of Engineer in Charge in the Ujjain Smart City Limited, that the Contractor has committed default in the due and faithful performance of all or any of its obligations under and in accordance with the Agreement shall be conclusive, final and binding on the Bank. The Bank further agrees that the Employer shall be the sole judge as to whether the Contractor is in default in due and faithful performance of its obligations during and under the Agreement and its decision that the Contractor is in default shall be final and binding on the Bank, notwithstanding any differences between the Employer and the Contractor, or any dispute between them pending before any court, tribunal, arbitrators or any other employer or body, or by the discharge of the Contractor for any reason whatsoever.
3. In order to give effect to this Guarantee, the Employer shall be entitled to act as if the Bank were the principal debtor and any change in the constitution of the Contractor and/or the

- Bank, whether by their absorption with any other body or corporation or otherwise, shall not in any way or manner affect the liability or obligation of the Bank under this Guarantee.
4. It shall not be necessary, and the Bank hereby waives any necessity, for the Employer to proceed against the Contractor before presenting to the Bank its demand under this Guarantee.
 5. The Employer shall have the liberty, without affecting in any manner the liability of the Bank under this Guarantee, to vary at any time, the terms and conditions of the Agreement or to extend the time or period for the compliance with, fulfillment and/ or three of all or any of the obligations of the Contractor contained in the Agreement or to postpone for any time, and from time to time, any of the rights and powers exercisable by the Employer against the Contractor, and either to enforce or forbear from enforcing any of the terms and conditions contained in the Agreement and/or the securities available to the Employer, and the Bank shall not be released from its liability and obligation under these presents by any exercise by the Employer of the liberty with reference to the matters aforesaid or by reason of time being given to the Contractor or any other forbearance, indulgence, act or omission on the part of the Employer or of any other matter or thing whatsoever which under any law relating to sureties and guarantors would but for this provision have the effect of releasing the Bank from its liability and obligation under this Guarantee and the Bank hereby waives all of its rights under any such law.
 6. This Guarantee is in addition to and not in substitution of any other guarantee or security now or which may hereafter be held by the Employer in respect of or relating to the Agreement or for the fulfillment, compliance and/or performance of all or any of the obligations of the Contractor under the Agreement.
 7. Notwithstanding anything contained hereinbefore, the liability of the Bank under this Guarantee is restricted to the Guarantee Amount and this Guarantee will remain in force for the period specified in paragraph 8 below and unless a demand or claim in writing is made by the Employer on the Bank under this Guarantee all rights of the Employer under this Guarantee shall be forfeited and the Bank shall be relieved from its liabilities hereunder.
 8. The Guarantee shall cease to be in force and effect on ****\$. Unless a demand or claim under this Guarantee is made in writing before expiry of the Guarantee, the Bank shall be discharged from its liabilities hereunder.
 9. The Bank undertakes not to revoke this Guarantee during its currency, except with the previous express consent of the Employer in writing and declares and warrants that it has the power to issue this Guarantee and the undersigned has full powers to do so on behalf of the Bank.
 10. Any notice by way of request, demand or otherwise hereunder may be sent by post addressed to the Bank at its above referred branch, which shall be deemed to have been duly authorised to receive such notice and to effect payment thereof forthwith, and if sent by post it shall be deemed to have been given at the time when it ought to have been delivered in due course of post and in proving such notice, when given by post, it shall be sufficient to prove that the envelope containing the notice was posted and a certificate signed by an officer of the Employer that the envelope was so posted shall be conclusive.
 11. This Guarantee shall come into force with immediate effect and shall remain in force and effect for up to the date specified in paragraph 8 above or until it is released earlier by the Employer pursuant to the provisions of the Agreement.
 12. This guarantee shall also be operatable at our..... Branch at <.....> , from whom, confirmation regarding the issue of this guarantee or extension / renewal thereof shall be made available on demand. In the contingency of this guarantee being invoked and payment

thereunder claimed, the said branch shall accept such invocation letter and make payment of amounts so demanded under the said invocation.

Signed and sealed this day of, 20..... at

SIGNED, SEALED AND DELIVERED

For and on behalf of the Bank by:

(Signature)

(Name)

(Designation)

(Code Number)

(Address)

NOTES:

- (i) The bank guarantee should contain the name, designation and code number of the officer(s) signing the guarantee.
- (ii) The address, telephone number and other details of the head office of the Bank as well as of issuing branch should be mentioned on the covering letter of issuing branch.

SECTION 3

Conditions of Contract Part - I General Conditions of Contract [GCC]

Table of Clauses of GCC

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A. General

1. DEFINITIONS

- 1.1. **Bill of Quantities:** means the priced and completed Bill of Quantities forming part of the Bid.
- 1.1 A **Chief Executive officer (C.E.O)** means Chief Executive officer , Ujjain Municipal Corporation, Ujjain
- 1.1 B **Commissioner :**means Commissioner, Ujjain Municipal Corporation, Ujjain
- ~~1.2. **Chief Engineer:** means Chief Engineer of the zone/ basin concerned:~~
- 13. **Completion:** means completion of the work as certified by the Engineer-in-Charge, in accordance with provisions of agreement.
- 1.4. **Contract:** means the Contract between the Employer and the Contractor to execute, complete and/or maintain the work. Agreement is synonym of Contract and carries the same meaning wherever used.
- 1.5. **Contract Data:** means the documents and other information, which comprise of the Contract.
- 1.6. **Contractor:** means a person or legal entity whose bid to carry out the work has been accepted by the Employer.
- 1.7. **Contractor's bid:** means the completed bid document submitted by the Contractor to the Employer.
- 1.8. **Contract amount:** means the amount of contract worked out on the basis of accepted bid.
- 1.9. **Completion of work:** means completion of the entire contracted work; Exhaustion of quantity of any particular item mentioned in the bid document shall not imply completion of work or any component thereof.
- 1.10. **Day:** means the calendar day.
- 1.11. **Defect:** means any part of the work not completed in accordance with the specifications included in the contract.
- 1.12. **Department:** means Ujjain Smart City Limited .
- 1.13. **Drawings:** means drawings including calculations and other information provided or approved by the Engineer-in-Charge.
- 1.14. **Employer:** means the party as defined in the Contract Data, who employs the Contractor to carry out the work. The Employer may delegate any or all functions to a person or body nominated by him for specified functions. The word Employer / Government / Department wherever used denote the Employer.
- 1.15. **Engineer:** means the person named in the Contract Data.
- 1.16. **Engineer in charge:** means the person named in the Contract Data.
- 1.17. **Equipment:** means the Contractor's machinery and vehicles brought temporarily to the Site for execution of work.
- 1.17B **Executive Engineer:** / EE mean Executive Engineer appointed by USCL from time to time.
- 1.17 C **Executive Director** means Executive Director of , Ujjain Smart City Limited
- 1.18. **Government:** means Government of Madhya Pradesh.
- 1.19. **In Writing:** means communicated in written form and delivered against receipt.
- 1.20. **Material:** means all supplies, including consumables, used by the Contractor for incorporation in the work.
- 1.21. **Superintending Engineer:** means Superintending Engineer-in-Charge of Ujjain Smart City
- 1.22. **Stipulated period of completion:** means the period in which the Contractor is required to complete the work. The stipulated period is specified in the Contract Data.
- 1.23. **Specification:** means the specification of the work included in the Contract and any modification or addition made or approved by the Engineer-in-Charge.
- 1.24. **Start Date:** means the date of signing of agreement for the work.
- 1.25. **Sub-Contractor:** means a person or corporate body who has a Contract with the Contractor, duly authorized to carry out a part of the construction work under the Contract.

- 1.26. **Temporary Work:** means work designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the work.
- 1.27. **Tender/Bid, Tendered/Bidder:** are the synonyms and carry the same meaning where ever used. -
- 1.28. **Variation:** means any change in the work which is instructed or approved as variation under this contract.
- 1.29. **Work:** The expression “work’ or “works” where used in these conditions shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the work by virtue of contract, contracted to be executed, whether temporary or permanent and whether original, altered, substituted or additional,

2. INTERPRETATIONS AND DOCUMENTS

2.1 Interpretations

In the contract, except where the context requires otherwise:

- a. words indicating one gender include all genders;
- b. Words indicating the singular also include the plural and vice versa.
- c. provisions including the word “agree”, “agreed” or “agreement’ require the agreement to be recorded in writing.
- d. written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

2.2 Documents Forming Part of Contract:

1. NIT with all amendments.
2. Instructions to Bidders (ITB, Bid Data Sheet with all Annexure’s)
3. Conditions of Contract:
 - I. Part I General Conditions of Contract and the Contract Data; with all Annexures
 - II. Part II Special Conditions of Contract.
4. Specifications
5. Drawings
- 6 Bill of Quantities
7. Technical and Financial Bid
8. Agreement, and
9. Any other document(s), as specified.

3. Language and Law

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

4. Communications

All certificates, notice or instruction to be given to the Contractor by Employer/Engineer shall be sent to the address or contact details given by the Contractor in [Annexure H of ITB]. The address and contact details for communication with the Employer/Engineer shall be as per the details given in the Contract Data. Communication between parties that are referred to in the conditions shall be in writing. The notice sent by facsimile (fax) or other electronic means (email) shall also be effective on confirmation of the transmission. The notice sent by registered post or speed post shall be effective on delivery or at the expiry of the normal delivery period as undertaken by the postal service. In case of any change in address for communication, the same shall be immediately notified to Engineer-in- Charge.

5. Subcontracting

Subcontracting shall be permitted for contracts of value more than amount specified in the Contract Data with following conditions.

- a. The Contractor may subcontract up to 25 percent of the contract price with the approval of the Employer in writing, but will not assign the Contract. Subcontracting shall not alter the Contractors obligations.
- b. Following shall not form part of subcontracting:
 - I. Hiring of labour through a labour contractor.
 - II. The purchase of Materials to be incorporated in the works.
 - III. Hiring of plant & machinery.
- c. The sub-contractor will have to be registered in the appropriate category in the centralized registration system for contractors of the GoMP.

6. Personnel

- 6.1 The Contractor shall employ for the construction work and routine maintenance the technical personnel as provided in the Annexure I-3 of Bid Data Sheet if applicable. If the Contractor fails to deploy required number of technical staff, recovery as specified in the Contract Data will be made from the Contractor.
- 6.2 If the Engineer asks the Contractor to remove a person who is a member of the contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within three days and has no further connection with the Works in the Contract.

7. Force Majeure

- 7.1 The term "Force Majeure" means an exceptional event or circumstance:

- (a) Which is beyond a Party's control,
- (b) Which such Party could not reasonably have provided against before entering into the Contract
- (c) Which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) Which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- i. War, hostilities (whether war be declared or not), invasion, act of foreign enemies,

- ii. Rebellion, terrorism, sabotage by persons other than the contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
 - iii. Riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
 - iv. Munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
 - v. Natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.
- 7.2. In the event of either party being rendered unable by force majeure to perform any duty or discharge any responsibility arising out of the contract, the relative obligation of the party affected by such force majeure shall upon notification to the other party be suspended for the period during which force majeure event lasts. The cost and loss sustained by either party shall be borne by respective parties.
- 7.3. For the period of extension granted to the Contractor due to Force Majeure the price adjustment clause shall apply but the penalty clause shall not apply. It is clarified that this sub clause shall not give eligibility for price adjustment to contracts which are otherwise not subject to the benefit of price adjustment clause.
- 7.4. The time for performance of the relative obligation suspended by the force majeure shall stand extended by the period for which such cause lasts. Should the delay caused by force majeure exceed twelve months, the parties to the contract shall be at liberty to foreclose the contact after holding mutual discussions.

8. Contractor's Risks -

- 8.1. All risks of loss or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract are the responsibility of the Contractor.
- 8.2. All risks and consequences arising from the inaccuracies or falseness of the documents, drawing, designs, other documents and/or information submitted by the contractor shall be the responsibility of the Contractor alone, notwithstanding the fact that the design/ drawings or other documents have been approved by the department.

9. Liability for Accidents to Person

The contractor shall be deemed to have indemnified and saved harmless the Corporation against all action, suits, claims, demands, costs etc. arising in connection with injuries suffered by any persons employed by the contractor or his subcontractor for the works whether under the General law or under workman's compensation Act or any other statute in force at the time of dealing with the question of the liability of employees for the injuries suffered by employees and to have taken steps properly to ensure against any claim there under.

10. Contractor to Construct the Works

- 10.1. The Contractor shall construct install and maintain the Works in accordance with the Specifications and Drawings as specified in the Contract Data.
- 10.2. In the case of any class of work for which there is no such specification as is mentioned in Contract Data, such work shall be carried out in accordance with the instructions and requirement of the Engineer-in-charge.
- 10.3. The contractor shall supply and take upon himself the entire responsibility of the sufficiency of the scaffolding, timbering, machinery, tools and implements, and

generally of all means used for the fulfilment of this contract whether such means may or may not be approved or recommended by the Engineer.

11. Discoveries

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

12. Dispute Resolution System

- 12.1 No dispute can be raised except before the Competent Authority as defined in Contract Data in writing giving full description and grounds of dispute. It is clarified that merely recording protest while accepting measurement and/or payment shall not be taken as raising a dispute.
- 12.2 No dispute can be raised after 45 days of its first occurrence. Any dispute raised after expiry of 45 days of its first occurrence shall not be entertained and the Employer shall not be liable for claims arising out of such dispute.
- 12.3 The Competent Authority shall decide the matter within 45 days.
- 12.4 Appeal against the order of the Competent Authority can be preferred within 30 days to the Appellate Authority as defined in the Contract Data. The Appellate Authority shall decide the dispute within 45 days.
- 12.5 Appeal against the order of the Appellate Authority can be preferred before the Madhya Pradesh Arbitration Tribunal constituted under Madhya Pradesh *Madhyastham Adhikaran Adhiniyam, 1983*.
- 12.6 The Contractor shall have to continue execution of the Works with due diligence notwithstanding pendency of a dispute before any authority or forum.

B. Time Control

13. Programme

- 13.1 Within the time stated in the Contract Data, the Contractor shall submit to the Engineer for approval a Programme showing the general methods arrangements, order and timing for all the activities for the construction of works.
- 13.2 **The program shall be supported with all the details regarding key personnel, equipment and machinery proposed to be deployed on the works for its execution.** The contractor shall submit the list of equipment and machinery being brought to site, the list of key personnel being deployed, the list of machinery/equipment being placed in field laboratory and the location of field laboratory along with the Programme.
- 13.3 An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities.
- 13.4 The Contractor shall submit to the Engineer for approval an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

13.5 The Engineer's approval of the Programme shall not alter the Contractor's obligations.

14. Extension of Time

14.1. If the Contractor desires an extension of time for completion of the work on the ground of his having been unavoidably hindered in its execution or on any other grounds, he shall apply, in writing, to the Engineer-in-charge, on account of which he desires such extension. Engineer-in-Charge shall forward the aforesaid application to the Competent Authority as prescribed.

14.2 The competent authority shall grant such extension at each such occasion within a period of 30 days of receipt of application from contractor and shall not wait for finality of work. Such extensions shall be granted in accordance with provisions under clause 15 of this agreement.

14.3 In case the work is already in progress, the Contractor shall proceed with the execution of the works, including maintenance thereof, pending receipt of the decision of the competent authority as aforesaid with all due diligence.

15. Compensation for delay

15.1 The. time allowed for carrying out the work, as entered in the agreement, shall be strictly observed by the Contractor.

15.2 The time allowed for execution of the contract shall commence from the date of signing of the agreement. It is clarified that the need for issue of work order is dispensed with.

15.3 In the event milestones are laid down in the Contract Data for execution of the works, the contractor shall have to ensure strict adherence to the same.

15.4 Failure of the Contractor to adhere to the timelines and/or milestones shall attract such liquidated damages as is laid down in the Contract Data.

15.5 In the event of delay in execution of the Works as per the time lines mentioned in the Contract Data the Engineer-in-charge shall retain from the bills of the Contractor amount equal to the liquidated damages leviable until the Contractor makes such delays good. However, the Engineer-in-charge shall accept bankable security in lieu of retaining such amount.

15.6 If the Contractor is given extension .of time after liquidated damages have been paid, the Engineer in Charge shall correct any over payment of liquidated damages by the Contractor in the next payment certificate.

15.7 In the event the Contractor fails to make good the delay until completion of the stipulated contract period (including extension of time) the sum so retained shall be adjusted against the liquidated damages levied.

16. Contractor's quoted percentage

The Contractor's quoted percentage rate referred to in the "Bid for works' will be deducted added from/to the net amount of the bill after deducting the cost of material supplied by the department.

C. Quality Control

17. Tests

- 17.1 The Contractor shall be responsible for:
- a. Carrying out the tests prescribed in specifications, and
 - b. For the correctness of the test results, whether preformed in his laboratory or elsewhere.
- 17.2 The contractor shall have to establish field laboratory within the time specified and having such equipments as are specified in the Contract Data.
- 17.3 Failure of the Contractor to establish laboratory shall attract such penalty as is specified in the Contract Data.
- 17.4 Ten percent of the mandatory test prescribed under the specification shall be got carried out through laboratories accredited by national Accreditation Board of laboratories (NABL) By the Engineer-in-charge and the cost of such testing shall be deducted form the payments due to contractor .
- 18. Correction of Defects noticed during the Defect Liability Period**
- 18.1 The Defect Liability Period of work in the contract shall be as per the Contract Data.
- 18.2 The Contractor shall promptly rectify all defects pointed out by the Engineer well before the end of the Defect Liability Period. The Defect Liability Period shall automatically stand extended until the defect is rectified.
- 18.3 If the Contractor has not corrected a Defect pertaining to the Defect Liability Period to the satisfaction of the Engineer, within the time specified by the Engineer, the Engineer will assess the cost of haying the Defect corrected, and the cost of correction of the Defect shall be recovered from the Performance Security or any amount due or that may become due to the contractor and other available securities.

D. COST CONTROL

19. Variations - Change in original Specifications, Designs, and Drawings etc.

- 19.1 The Engineer-in-charge shall have power to make any alterations, omissions or additions to or substitutions in the original specifications, drawings, designs and instructions, that may appear to him to be necessary during the progress of the work and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-charge, and such alterations, omission, additions or substitutions shall not invalidate the contract and any altered, additional or substituted work, which the contractor may be directed to do in the manner above specified, as part of the work, shall be carried out by the contractor on the same conditions in all respects on which he agrees to do the main work.
- 19.2 The time for the completion of the work shall be adjusted in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Engineer-in-charge shall be conclusive as to such proportion.

20. Extra items

- 20.1 All such items which are not included in the priced BOQ shall be treated as extra items.

21. Payments for Variations and / or Extra Quantities

- 21.1 The rates for such additional (Extra quantity), altered or substituted work / extra items under this clause shall be worked out in accordance with the following provisions in the irrespective order:
- a. The contractor is bound to carry out the additional (Extra quantity), work at the same rates as are specified in the contract for the work.
 - b. If the item is not in the priced BOQ and is. included in the SOR of the department, the rate shall be arrived at by applying the quoted tender percentage on the SOR rate.
 - c. If the rates for the altered or substituted work are not provided in applicable SOR - such rates will be derived from the rates for a similar class (type) of work as is provided in the contract (priced BOQ) for the work.
 - d. If the rates for the altered, substituted work cannot be determined in the manner specified in the sub clause (c) above - then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates minus/plus the percentage quoted by the contractor.
 - e. If the rates for a particular part or parts of the item is not in the Schedule of Rates and the rates for the altered, or substituted work item cannot be determined in he manner specified in sub clause (b) to (d) above, the rate for such part or parts will be determined by the Competent Authority, as defined in the Contract Data on the basis of the rate analysis derived out of prevailing market rates when the work was done.
 - f. But under no circumstances, the contractor shall suspend the work on the plea of non-acceptability of rates on items falling under sub clause (a) to (d). In case the contractor does not accept the rate approved by the Engineer in Charge for a particular item, the contractor shall continue to carry out the item at the rates determined by the Competent Authority. The decision on the final rates payable shall be arrived at through the dispute settlement procedure.

22. No compensation for alterations in or restriction of work to be carried out.

- 22.1. If at any time after the commencement of the work, the Engineer-in-charge for any reason whatsoever, not require the whole or any part of the work as specified in the bid to be carried out the Engineer-in-charge shall give notice in writing of the fact to the Contractor and withdraw that whole or any part of the work.
- 22.2 The Contractor shall have no claim to any payments or compensation whatsoever, on account of any profit or advantage which he might have derived from the execution of work in full or on account of any loss incurred for idle men and machinery due to any alteration or restriction of work for whatsoever reason.
- 22.3 The Engineer-in-charge may supplement the work by engaging another agency to execute such portion of the work, without prejudice to his rights.

23. 'No Interest Payable

No interest shall be payable to the Contractor on any payment due or awarded by any authority.

24. Recovery from Contractors

Whenever any claim against the Contractor for the payment arises under the contract, the Department may be entitled to recover such sum by:

- (a) Appropriating, in part or whole of the Performance Security and Additional Performance Security, if any; and/or Security Deposit and / or any sums payable under the contract to the contractor.
- (b) If the amount recovered in accordance with (a) above is not sufficient, the balance sum may be recovered from any payment due to the contractor -under any other contract of the department, including the securities which become due for release.
- (c) The department shall, further have an additional right to effect recoveries as arrears of land revenue under the M.P. Land-Revenue Code.

25. Tax -

- 25.1 The rates quoted by the Contractor shall be deemed to be inclusive of the sales and other levies, duties, cess, toll, taxes of Central and State Governments, local bodies and authorities. But the GST shall be paid extra to the contractor as per rules.
- 25.2 The liability, if any, on account of quarry fees, royalties, octroi and any other taxes and duties in respect of materials actually consumed on public work, shall be borne by the Contractor.
- 25.3 Any changes in the taxes due to change in legislation or for any other reason shall not be payable to the contractor.

26. Check Measurements

- 26.1 The department reserves to itself the right to prescribe a scale of check measurement of work in general or specific scale for specific works or by other special orders.
- 26.2 Checking of measurement by superior officer shall supersede measurements by subordinate officer(s), and the former will become the basis of the payment.
- 26.3 Any over/excess payments detected, as a result of such check measurement or otherwise at any stage up to the date of completion of the defect liability period specified in this contract, shall be recoverable from the Contractor, as per clause 24 above.

27. Termination by Engineer in charge

- 27.1 If the Contractor fails to carry out any obligation under the Contract, the Engineer in Charge may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.
- 27.2 The Engineer in Charge, shall be entitled to terminate the Contract if the Contractor
 - a) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract;
 - b) the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
 - c) without reasonable excuse falls to comply with the notice to correct a particular defect within a reasonable period of time;
 - d) the Contractor does not maintain a valid instrument of financial security as prescribed;

- e) the Contractor has delayed the completion of the Works by such duration for which the maximum amount of liquidated damages is recoverable;
- f) If the Contractor fails to deploy machinery and equipment or personnel or set up a field laboratory as specified in the Contract Data;
- g) If the contractor, in the judgment of the Engineer in charge has engaged in corrupt or fraudulent practices in competing for or in executing the contract;
- h) Any other fundamental breaches as specified in the Contract Data.

27.3 In any of these events or circumstances, the Engineer in Charge may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the Site, However, in the case of sub-paragraph (b) or (g) of clause 27.2, the Engineer in Charge may terminate the Contract immediately.

27.4 Notwithstanding the above, the Engineer-in-Charge may terminate the Contract for convenience by giving notice to the Contractor.

28. Payment upon Termination

28.1 If the contract is terminated under clause 27.3, the Engineer shall issue a certificate for value of the work accepted on final measurements, less Advance Payments and Penalty as indicated in the Contract Data. The amount so arrived at shall be determined by the Engineer-in-Charge and shall be final and binding on both the parties.

28.2 Payment on termination under clause 27.4 above -

If the Contract is terminated under clause 27.4 above, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation, of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

28.3 If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be recovered as per clause 24 above.

29. Performance Security

The Contractor shall have to submit, performance security and additional performance security, if any, as specified in the Bid Data Sheet at the time of signing of the contract. The contractor shall have to ensure that such performance security and additional performance security, if any remains valid for the period 'as specified in the Contract Data.

30. Security Deposit-

30.1 Security Deposit shall be deducted from each running bill at the rate as specified in the Contract Data. The total amount of Security Deposit so deducted shall not exceed the percentage of Contract Price specified in the Contract Data.

30.2 The security deposit may be replaced by equivalent amount of bank guarantee or fixed deposit receipt assigned to the Employer, with validity up to completion of Defect Liability Period/ extended Defectability Period.

30.3 The Security Deposit shall be refunded on completion of Defect Liability Period plus 3(three) Months.

31. Price Adjustment (Not Applicable for this project)

~~31.1 Applicability~~

- ~~1. Price adjustment shall be applicable only if provided for in the Contract Data.~~
- ~~2. The price adjustment clause shall apply only for the works executed from the date of signing of the agreement until the end of the initial intended completion date or extensions granted for reasons attributed to the Employer by the Engineer.~~
- ~~3. The Contractor shall not be entitled to any benefit arising from the price adjustment clause for extension in the contract period for reasons attributed to the Contractor.~~
- ~~4. In the Force Majeure event the price escalation clause shall apply.~~

~~31.2 Procedure~~

- ~~1. Contract price shall be adjusted for increase or decrease in rates and price of labor, materials, fuels and lubricants in accordance with following principles and procedures and as per formula given in the contract data.~~
 - ~~2. The price adjustable shall be determined during each quarter from the formula given in the contract data.~~
 - ~~3. Following expression and meaning are assigned to the work done during each quarter:
 $R = \text{Total value of work during the quarter. It would include the amount of secured advance granted, if any, during the quarter, less the amount of secured advance recovered, if any during the quarter, less value of material issued by the department, if any, during the quarter.}$~~
 - ~~4. Weightages of various components of the work shall be as per the Contract Data.~~
- ~~31.3 To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.~~
- ~~31.4 The index relevant to any quarter, for which such compensation is paid, shall be the arithmetical average of the indices relevant of the calendar month.~~
- ~~31.5 For the purpose of clarity it is pointed out that the price adjustment may be either positive or negative, i.e. if the price adjustment is in favour of the Employer, the same shall be recovered from the sums payable to the Contractor.~~

32. Mobilization and Construction Machinery Advance (Not Applicable to this contract)

- ~~32.1 Payment of advances shall be applicable if provided in the Contract Data.~~
- ~~32.2 If applicable, the Engineer in Charge shall make interest bearing advance payment to the contractor of the amounts stated in the Contract Data, against provision by the contractor of an unconditional Bank Guarantee in a form and by a nationalized/ scheduled banks, in the name as stated in the Contract Data in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid by the contractor.~~
- ~~32.3 The rate of interest chargeable shall be as per Contract Data.~~
- ~~32.4 The construction machinery advance, if applicable, shall be limited to 80% of the cost of construction machinery and admissible only for new construction machinery.~~
- ~~32.5 The advance payment shall be recovered as stated in the Contract Data by deducting proportionate amounts from payment otherwise due to the Contractor. No account shall be~~

~~taken of the advance payment or its recovery in assessing valuations of work done, variations, price adjustments, compensation events, or liquidated damages.~~

33. Secured Advance (Not Applicable to this contract)

~~33.1 Payment of Secured Advance shall be applicable if provided in the Contract Data.~~

~~33.2 If applicable, the Engineer shall make advance payment against materials intended for but not yet incorporated in the Works and against provision by the contractor of an unconditional Bank Guarantee in a form and by a nationalized/ scheduled bank, in the name as stated in the Contract Data, in amounts equal to the advance payment. The guarantee shall remain effective until the advance payment has been adjusted, but the amount of the guarantee shall be progressively reduced by the amounts adjusted by the contractor.~~

~~33.3 The amount of secured advance and conditions to be fulfilled shall be as stipulated in the Contract Data.~~

~~33.4 The Secured Advance paid shall be recovered as stated in the Contract Data.~~

34. Payment Certificates

The payment to the contractor will be as follows for construction work:

- (a) The Contractor shall submit to the Engineer monthly statements of the value of the work executed less the cumulative amount certified previously, supported with detailed measurement of the items of work executed.
- (b) The Engineer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- (c) The value of work executed shall be determined, based on the measurements approved by the Engineer/ Engineer-in-charge.
- (d) The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed:
- (e) The value of work executed shall also include the valuation of Variations and Compensation Events.
- (f) All payments shall be adjusted for deductions for advance payment, security deposit, other recoveries in terms of contract and taxes at source as applicable under the law.
- (g) The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.
- (h) Payment of intermediate certificate shall be regarded as payments by way of advance, against the final payment and not as payments for work actually done and completed.
- (i) Intermediate payment shall not preclude the requiring of bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or be considered as an admission of the due performance of the contractor any part thereof, in any respect or the occurring of any claim.
- (j) The payment of final bill shall be governed by the provisions of clause 36 of GCC.
- (k) The payments for O&M shall be made quarterly on the basis of yearly O&M rate.

E. Finishing the Contract

35. Completion Certificate

35.1 A Completion Certificate in the prescribed format in Contract Data shall be issued by the Engineer-in-Charge after physical completion of the Work.

35.2 After final payment to the Contractor a Final Completion Certificate in the prescribed format in the Contract Data shall be issued by the Engineer-in Charge.

36. Final Account

36.1 The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable for works under the Contract within 21 days of issue of certificate of physical completion of works. The Engineer shall issue a Defects Liability Certificate and certify any payment that is due to the Contractor within 45 days of receiving

the Contractor's account if it is correct and complete. If the account is not correct or complete, the Engineer shall issue within 45 days a schedule that states the scope of the corrections or additions that are necessary. If the Account is still unsatisfactory after it has been resubmitted, the matter shall be referred to the Competent Authority as defined in the Contract Data, who shall decide on the amount payable to the Contractor after hearing the Contractor and the Engineer in Charge.

- 36.2 In case the account is not received within 21 days of issue of Certificate of Completion as provided in clause 32.1 above, the Engineer shall proceed to finalize the account and issue a payment certificate within 28 days.

F. Other Conditions of Contract

37. Currencies

All payments will be made in Indian Rupees.

38. Labour

- 38.1 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.
- 38.2 The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

39. Compliance with Labor Regulations

- 39.1 During continuance of the Contract, the Contractor and his Sub Contractors shall abide at all times by all existing labor enactments and rules made there under, regulations, notifications and bye laws of the, State or Central Government or local authority and any other labor law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labor law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that, are applicable to construction industry are given in the Contract Data. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made their under, regulations or notifications including amendments, If the Employer is caused to pay or reimburse, such amounts as may .be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/ byelaws/ Acts/Rules / regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct from any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer. The employees of the Contractor and the Sub Contractor in no case shall be treated as the employees of the Employer at any point of time.

40. Audit and Technical Examination

Government shall have the right to cause an audit and technical examination of the works and the final bill of the contract including all supporting vouchers abstract etc to be made after payment of the final bill and if as a result of such audit and technical examination any sun is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed by him to have been done under the contract and found not to; have

been executed, the Contractor shall be liable to refund the amount of overpayment and it shall be lawful for Government to recover the same from him in the manner prescribed in clause 24 above and if it is found that the Contractor was paid less than what was due to him, under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by Government to the Contractor.

41. Death or Permanent Invalidity of Contractor

If the Contractor is an individual or a proprietary concern, partnership concern, dies during the currency of the contract or becomes permanently incapacitated, where the surviving partners are only minors, the contract shall be closed without levying any damages/compensation as provided for in clause 28.2 of the contract agreement. However, if the competent authority is satisfied about the competence of the survivors, then the competent authority shall enter into a fresh agreement for the remaining work strictly on the same terms and conditions under which the contract was awarded.

42. Jurisdiction

This contract has been entered in the State of Madhya Pradesh and its validity, construction, interpretation and legal effect shall be subjected to the courts at the place where this agreement is entered into. No other jurisdiction shall be applicable.

[End of GCC]

Contract Data

Clause reference	Particulars	Data
1.14	Employer	Executive Director on behalf of USCL, Ujjain
1.15	Engineer	Engineer Nominated by USCL
1.16	Engineer in Charge	Superintending Engineer
1.12	Stipulated period of completion	3 months (including Rainy season)
3	Language & Law of Contract	English, Indian Contract Act 1872
4	Address & contact details of the Contractor	As per Annexure H
	Address & contact details of the Employer/ Engineer- phone, Fax, email.	Executive Director, USCL
5	Subcontracting permitted for the Contract Value	No
6	Technical Personnel to be provided the contractor—requirement, &	As per Annexure - I (Format I-3)
	Penalty, if required Technical Personnel not employed (for full time staff) . In case the part time Personnel are not deployed as per requirements the payments shall be deducted on pro Rata basis.	As per Annexure - I (Format I-3)
10	Specifications	As per Annexure E
	Drawings / Location	As per Annexure N
12	Competent Authority for deciding dispute under Dispute Resolution System	Chief Executive officer USCL
	Appellate Authority for deciding dispute under Dispute Resolution System	Executive Director, USCL
13	Period for submission of updated construction program	Initial Work Plan shall be submitted within Seven days of Contract signing and then shall be updated Every Months
	Amount to be withheld for not submitting construction program in prescribed period	As per rule (The contractor shall submit the planned as well as executed work in file compatible with Microsoft Project)
13.1	Additional supports for ensuring proper Monitoring	As per Annexure – W
14	Competent Authority for granting Time Extension.	Superintending Engineer / Chief Executive Officer USCL
15	Milestones laid down for the contract	YES
	If Yes, details of Milestones	As per Annexure – O
	Liquidated damage	As per Annexure – P

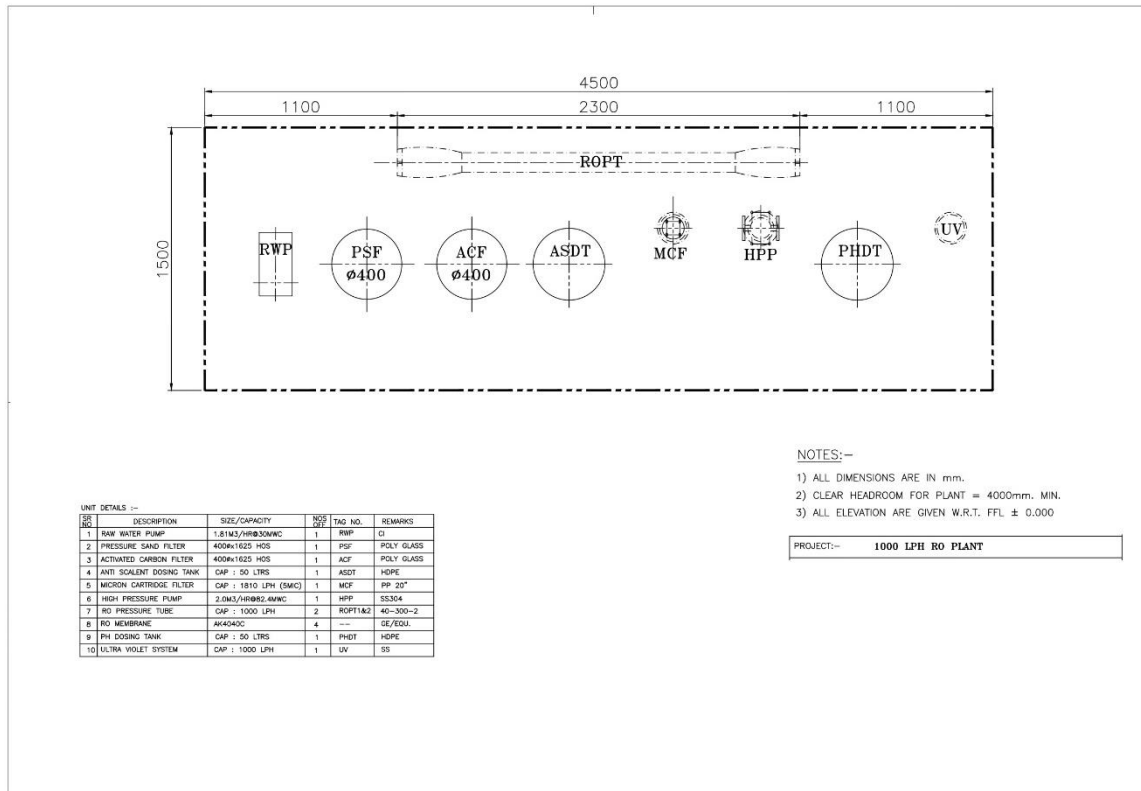
17	List of equipment for lab	As per Annexure - Q Not applicable
	Time to establish lab	15 days from the signing of Agreement.
	Penalty for not establishing field Laboratory	-
18	Defect Liability Period	36 months (3years) after physical completion of work of Civil Works & 60 months (5 Years) for Electrical work. Note – in accordance with clause 18.3 (GCC), the Engineer in charge shall intimate the contractor about the cost assessed, for making good the defects, action for correction of defects shall be taken by the Engineer in Charge as below: a) Deploy departmental labour and material or b) Engage a contractor by issuing a work order at contract rate/SOR rate or c) Sanction supplementary work in a existing agreement to a contractor of similar other work or d) Invite open tender or e) Combination of above
21	Competent Authority for determining the rate	Superintending Engineer, USCL
27	Any other condition for breach of contract	Yes as below : If the contractor fails to achieve 50 % financial progress in any milestone and/or fails to achieve 75% financial progress in two consecutive mile stone
28	Penalty	Penalty Shall include (a) Security deposit as per clause 30 of General Conditions of Contract and (b) Liquidated Damages imposed as per clause 15 or Performance Security (Guarantee) including Additional Performance Security (Guarantee), if any, as per clause 29 of General Conditions of Contract, whichever is higher
29	Performance guarantee (Security) shall be valid up to	Till issue of physical Completion Certificate as per Clause 35.1
		The Performance guarantee shall be refunded on completion plus 3 Months.
30	Security Deposit to be deducted from each running bill	At the rate of 7% of Gross amount of running bill
	Maximum limit of deduction of Security Deposit	Up to 7% of Final Contract Amount.
31	Price Adjustment formula and	Not Applicable.

	procedure to calculate	
31.1 (1)	Price adjustment shall be applicable	NO
32	32.1 Mobilization and Construction Machinery Advance Applicable	No Mobilization and Construction Machinery Advance shall be payable.
	32.2 If yes, Unconditional Bank Guarantee	Not Applicable
	32.3 If yes, Rate of interest chargeable on advances	Not applicable
	32.4 If yes, Type & Amount of Advance payment that can be paid	Not Applicable
	32.5 If yes, Recovery of advance payment	Not Applicable.
33	33.1 secured Advance Applicable	No Secured Advance payable.
	33.2 if yes, Unconditional Bank Guarantee	Not Applicable
	33.2 if yes, Amount of Secured Advance :	Not Applicable
	33.3 if yes, Conditions for secured advance .	Not Applicable
	33.4 if yes, Recovery of Secured advance	Not Applicable
35	Completion certificate - after physical completion of the Work	As per Annexure - U
	Final Completion Certificate — after final payment on completion of the Work	As per Annexure-V
36	Competent Authority for deciding unsatisfactory Final Accounts	Executive Director, USCL
37	Salient features of some of the major labour laws that are applicable	As per Annexure – W

Annexure—N
(See clause 10 of Section 3— GCC)

Drawings

The Indicative Drawings are attached with the document at the END



ANNEXURE—O
(See clause 15 of Section 3 -GCC)

Details of Milestones

Mile stones to be followed are as under:

The time allowed for carrying out the work shall be strictly observed by the contractor and shall be deemed to be essence of the contract

The work shall throughout the stipulated period of contract be proceeded with all due diligence keeping in view that time is the essence of the contract. The contractor shall be bound in all cases to complete the following financial target:

No.	Description of Milestone (Financial)	Time allowed in days (from date of start)	Amount to be withheld in case of non- achievement of milestone
1	1/8th of the whole work	1/4th of the Stipulated period of contract	As per Annexure -" P "
2	3/8th of the whole work	1/2th of the Stipulated period of contract	
3	3/4th of the whole work	3/4th of the Stipulated period of contract	
4	Completion of Work	Stipulated period of contract	

Note: The commencement date of the project shall be considered from the date of actual Signing date of Contract Agreement.

Note: The commencement date of the project shall be considered from the date of actual Signing date of Contract Agreement.

ANNEXURE—P

(See clause 15 of Section 3-GCC)

Compensation for Delay

If the contractor fails to achieve the milestones, and the delay in execution of work is attributable to the contractor, the Employer shall retain an amount from the sums payable and due to the contractor as per following scale -

- i. Slippage up to 25% in financial target during the milestone under consideration - 2.5% of the work remained unexecuted in the related time span.
- ii. Slippage exceeding 25% but Up to 50% in financial target during the milestone under consideration - 5% of the work remained unexecuted in the related time span.
- iii. Slippage exceeding 50% but Up to 75% in financial target during the milestone under consideration -7.5% of the work remained unexecuted in the related time span,.
- iv. Slippage exceeding 75% in financial target during the milestone under consideration -10% of the work remained unexecuted in the related time span.

Note: *For arriving at the dates of completion of time span related to different milestones, delays which are not attributable to the Contractor shall be considered. The slippage on any milestone is if made good in subsequent milestones or at the time of stipulated period of completion, the amount retained as above shall be refunded. In case the work is not completed within the stipulated period of completion along with all such extensions which are granted to the Contractor for either Employer's default or Force Majeure, the compensation shall be levied on the contractor at the rate of 0.05% per day of delay limited to a maximum of 10% of contract price. The decision of Superintending Engineer shall be final and binding upon both the parties.*

Annexure – Q
(See clause 17 of Section 3 GCC)

List of Equipment for Quality Control Lab

Suggestive list of equipment required in the field laboratory to be set up by Contractor at no additional cost to Authority.

S.No.	Equipment	Quantity.
1	Set of I. S. sieves	
2	Atterberg Limit Apparatus	
3	Sand replacement Apparatus	
4	Crushing Strength Testing Machine	
5	Flexural Strength Testing Machine	
6	Compression Testing Machine, Capacity 50 tones.	
7	Aggregate Crushing value Apparatus	
8	Los Angeles Abrasion Machine	
9	Aggregate Impact Test Machine	
10	Concrete Batching Plant	
11	Length and Thickness Gauges	
12	Vicat apparatus for testing setting times	
13	Slump testing apparatus	
14	Needle & Plate Vibrator	
15	500gm, 10 Kg balances	
16	Length and Thickness Gauges.	
17	Electrical Oven	

- The contractor shall arrange to provide fully furnished and adequately equipped field laboratory with adequate qualified technical staff. Preferably located adjacent to the Project Office and provided amenities like water supply, electric supply etc.
- The laboratory equipment shall confirm I.S. specifications and MOST/MORTH/Applicable specifications. The Contractor shall carry out the calibration of the instruments as directed by the Engineer in- Charge on expiry date of calibration. On completion of work in all respect, the equipment will be the sole property of the contractor.
- It shall be considered as incidental to the work, and no extra payment will be made, what so ever, will not be made for the same.

ANNEXURE - R
(See clause 31 of Section 3 -GCC)

Price Adjustment
(Not Applicable)

The formulas for adjustment of price are as follow:

~~R = Value of work as defined in Clause 31.2(3) of General Conditions of Contract~~

Weightages* of component in the work

S.No.	Component	Percentage of Component in the work
1.	Cement - P_c	
2.	Steel - P_s	
3.	Bitumen - P_b	
4.	POL - P_i	

* Weightages of various components of the work shall be determined by the competent Technical authority.

Adjustment for cement component

(ii) Price adjustment for increase or decrease in cost of cement procured by the contractor shall be paid in accordance with the following formula:

$$V_c = 0.85 \times P_c / 100 \times R \times (S_1 - S_0) / S_0$$

V_c = increase or decrease in the cost of work during the month under Consideration due to changes in rates for cement.

S_0 = The all India wholesale price index for Grey cement on the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi (www.eaindustry.nic.in)

S_1 = The all India average wholesale price Index for grey cement for the month under consideration as published by Ministry Government of India, New Delhi. (www.eaindustry.nic.in)

P_c = Percentage of cement component of the work

Note: For the application of this clause, index of Grey Cement has been chosen to represent Cement group.

Adjustment of steel component

(iii) Price adjustment for increase or decrease in the cost of steel procured by the Contractor shall be paid in accordance with the following formula:

$$V_s = 0.85 \times P_s \times R \times (S_1 - S_0) / S_0$$

V_s = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for steel.

S_0 = The all India wholesale price index for steel (Bars and Rods) on the date of opening of Bids as published by the Ministry of Industrial Development, Government of India, New Delhi (www.eaindustry.nic.in)

S_1 = the all India average wholesale price index for steel (Bars and Rods) for the month under consideration as published by Ministry of Industrial Development, New Delhi (www.eaindustry.nic.in)

P_s = Percentage of steel component of the Work.

Note : For the application of this clause, index of Bars and Rods has been chosen to represent steel group.

Adjustment bitumen component

(iv) Price adjustment for increase or decrease in the cost of bitumen shall be paid in accordance with the following formula:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_i - B_o) / B_o$$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in rates for bitumen.

B_o = The official retail price of bitumen of the IOC at nearest center on the date of opening of Bids.

B_i = The official retail price of bitumen of the IOC at nearest center for the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work.

Adjustment of POL (fuel and lubricant) component

(v) Price adjustment for increase or decrease in cost of POL (fuel and lubricant) shall be paid in accordance with the following formula:

$$V_f = 0.85 \times P_f / 100 \times R \times (F_i - F_o) / F_o$$

V_f = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricant.

F_o = the official retail price of High speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the date of opening of Bids.

F_i = The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration.

P_f = Percentage of fuel and lubricants component of the work.

Note: For the application of this clause, the price of High Speed Diesel has been chosen to represent fuel and lubricants group.

Annexure - S
(See clause 32 of Section 3-GCC)

Bank Guarantee Form for Mobilization and Construction Machinery Advance

Not applicable for this Contract

To

_____[name of Employer]
_____[address of Employer]
_____[name of Contractor]

In accordance with the provisions of the General Conditions of Contract, clause 31 ("Mobilization and Construction Machinery Advance") of the above mentioned Contract _____[name and address of Contractor] (hereinafter called "the Contractor") shall deposit with _____[name of Employer] a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of _____[amount of Guarantee]* _____[in words].

We, the _____(bank of financial institution), as instructed by the Contractor, agree unconditionally and irrevocably to guarantee _____[name of Employer] and not as surety merely, the payment to _____(name of Employer) on his behalf and without whatsoever right of obligation on our part and without this first claim to the Contractor, in the amount not exceeding '[amount of guarantee]*' _____[in words].

We further agree that _____[name of Employer] in his sole and without whatsoever right of obligation on our part and without this first claim to the Contractor, in the amount not exceeding '[amount of guarantee]*' _____[in words].

This guarantee shall remain valid and in full effect from the date of the advance payment under the contract until _____[name of Employer] receives full repayment of the same amount from the Contractor.

Yours truly,

Signature and Seal: _____

Name of Bank/Financial Institution: _____

Address: _____

Date: _____

* An amount shall be inserted by the Bank or Financial Institution representing the amount of the Advance Payment and denominated in Indian Rupees.

Annexure - T
(See clause 33 of Section 3 -GCC)

Bank Guarantee Form for Secured Advance
(Not Applicable for this Contract)

INDENTURE FOR SECURED ADVANCES

_____ This indenture made the _____ day of _____ 20__ BETWEEN _____
(hereinafter called the contractor which expression shall where the context so admits or implies be deemed to include his executors, administrators and assigns) or the one part and the Employer of the other part.

_____ Whereas by an agreement dated _____ (hereinafter called the said agreement) the contractor has agreed.

_____ AND WHEREAS the contractor has applied to the Employer that he may be allowed advanced on the security of materials absolutely belonging to him and brought by him to the site of the works the subject of the said agreement for use in the construction of such of the works as he has undertaken to execute at rate _____ for _____ (inclusive of the cost of materials and labour and other charges) _____

_____ AND WHEREAS the Employer has agreed to advance to the Contractor the sum of Rupees _____ on the security of materials the quantities and other particulars of which are detailed in Account of Secured Advances attached to the Running Account Bill for the said works signed by the Contractor _____ and the Employer has reserved to himself the option of making any further advance or advances on the authority of other materials brought by the Contractor to the site of the said works.

_____ Now THIS INDENTURE WITNESSETH that in pursuance of the said agreement and in consideration of the sum of Rupees _____ on or before the execution of these presents paid to the Contractor by the Employer (the receipt where of the Contractor doth hereby 'acknowledge') and of such further advances (if any) as may be made to him as a for said the Contractor doth hereby covenant and agree with the President and declare as follows:

That the said sum of Rupees _____ so advanced by the Employer to

(1) _____ the Contractor as aforesaid and all or any further sum of sums advanced as aforesaid shall be employed by the Contractor in or towards expending the execution of the said works and for no other purpose whatsoever.

(2) _____ That the materials details in the said Account of Secured Advances which have been offered to and accepted by the Employer as security are absolutely the Contractor's own propriety and free from encumbrances of any kind and the contractor will not make any application for or receive a further advance, on the security Of materials which are not absolutely his own property and free from encumbrances of any kind and the Contractor indemnified the Employer against all claims to any materials in respect of which an advance has be made to him as aforesaid.

(3) _____ That the materials detailed in the said account of Secured Advances and all other materials on the security of which any further advance or advances may here after be made as aforesaid (hereafter called the said materials) shall be used by the Contractor solely in the execution of the said works in accordance with the directions of the Engineer.

(4) _____ That the Contractor shall make at his own cost all necessary and adequate arrangements for the proper watch, safe custody and protection against all risks of the said materials and that until used in construction as aforesaid the said materials shall remain at the site of the said works in the Contractor's custody and on his own responsibility and shall at all times be open to inspection by the Engineer or any officer authorized by him. In the event of the said materials or any part thereof being stolen, destroyed or damaged or becoming deteriorated in a greater degree than is due to

reasonable use and wear thereof the Contractor will forthwith replace the same with other materials of like quality or repair and make good the same required by the Engineer.

(5) — That the said materials shall not be removed from the site of the said works except with the written permission of the Engineer or an officer authorized by him on that behalf.

(6) — That the advances shall be repayable in full when or before the Contractor receives payment from the Employer of the price payable to him for the said works under the terms and provisions of the said agreement. Provided that if any intermediate payments are made to the Contractor on account of work done than on the occasion of each such payment the Employer will be at liberty to make a recovery from the Contractor's bill for such payment by deducting there from the value of the said materials than actually used in the construction and in respect of which recovery has not been made previously, the value for this purpose being determined in respect of each description of materials at the rates at which the amounts of the advances made under these presents were calculated.

(7) — That if the Contractor shall at any time make any default in the performance or observance in any respect of any of the terms and provisions of the said agreement or of these presents the total amount of the advance or advances that may still be owing of the Employer shall immediately on the happening of such default were payable by the Contractor to be the Employer together with interest thereon at twelve percent per annum from the date or respective dates of such advance or advances to the date of repayment and with all costs, charges, damages and expenses incurred by the Employer in or for the recovery thereof or the enforcement of the security or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Employer to repay and pay the same respectively to him accordingly.

(8) — That the Contractor hereby covenants and agrees with the Employer to repay to the Employer of the said sum of Rupees _____ and any further sum of sums advanced as aforesaid and with all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and this is hereby declared that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment hereinbefore contained shall become enforceable and the money owing shall not be paid in accordance there with the Employer may at any time thereafter adopt all or any of the following courses as he may deem best:

(a) — Seize and utilize the said materials or any part thereof in the completion of the said works on behalf of the contractor in accordance with the provision in that behalf contained in the said agreement debiting the contractor with the actual cost of effecting such completion and the amount due to the contractor with the value of work done as if he had carried it out in accordance with the said agreement and at the rates thereby provided. If the balance is against the contractor, he is to pay same to the Employer on demand.

(b) — Remove and sell by public auction the seized materials or any part thereof and out of the moneys arising from the sale retain all the sums aforesaid repayable or repayable to the Employer under these presents and pay over the surplus (if any) to the Contractor.

(c) — Deduct all or any part of the moneys owing out of the security deposit or any sum due to the Contractor under the said agreement.

(9) — That except in the event of such default on the part of the contractor as aforesaid interest on the said advance shall not be payable.

(10) — That in the event of any conflict between the provisions of these presents and the said agreement the provisions of these presents shall prevail and in the event of any dispute or difference arising over the construction or effect of these presents the settlement of which has not been here in before expressly provided for shall be referred to the Employer whose decision shall be final and the provisions of the Indian Arbitration Act for the time being in force shall apply to any such reference.

Annexure - U
(See clause 35 of Section 3 -GCC)

Physical Completion Certificate

Name of Work:

.....
.....
.....

Agreement NoDate

Amount of Contract Rs

Name of Agency

UsedMB No.

Last measurement recorded

a. Page No. &MB No. _____

b. Date _____

Certified that the above mentioned work was physically completed on(date) and taken over on(date) and that I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Executive Engineer/Engineer-in-charge

.....
.....

Annexure-V
(See clause 35 of Section 3-GCC)

Final Completion Certificate

Name of Work:

.....
.....
.....

Agreement noDate

Name of Agency:

Used MB No.

Last measurement recorded

a: Page No. & MB No. _____

b. Date _____

Certified that the above mentioned work was physically completed on(date)
and taken over on(date).

Agreemented amount Rs

Final Amount paid to contractor Rs.

Incumbency of officers for the work

I have satisfied myself to best of my ability that the work has been done properly.

Date of issue

Executive Engineer

.....
.....

Annexure - W
(See clause 39 of Section 3 -GCC)

Salient Features of Some Major Labour Laws Applicable

- a) **Workmen Compensation Act 1923** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:-** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days'(say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%), The benefits payable under the Act are:
- i. Pension or family pension on retirement or death as the case may be.
 - ii. Deposit linked insurance on the death in harness of the worker.
 - iii. Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** - The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** - The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the contractor fails to provide, the same are required to be provided, by the Principal Employer by Law.. The principal Employer is required to take certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.
- f) **'Minimum Wages Act 1948;** - The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of buildings, roads, runways is scheduled employment.
- g) **Payment of Wages Act 1936:** - It lays down as to by what date the wages are to be paid when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** - The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- i) **Payment of Bonus Act 1965:** - The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j) **Industrial Disputes Act 1947:** - The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

k) **Industrial Employment (Standing Orders) Act 1946:** - It is applicable to all establishments employing prescribed minimum (say, 100, or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and gets these certified by the designated Authority.

l) **Trade Unions Act 1926:** - The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have, 'been given certain immunities from civil and criminal liabilities.

m) **Child Labour (Prohibition & Regulation) Act 1986:** - The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.

n) **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979:** - The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Traveling expenses from home up to the establishment and back etc.

o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996** - All the establishments who carry on any building or other construction work and employs the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

p) **Factories Act 1948:** - The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power, or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

Part — II Special Conditions of Contract [SCC]

1. All works shall be carried out in strict accordance to the norms, procedure and specifications issued and enforced by BIS in Relevant Indian Standard specifications and code of Practices with up to date amendments and revisions, latest edition of National building code and National electric code. In addition, the installation shall comply in all respects with the requirements of Indian Electricity Act 1910 and Indian Electricity Rule 1956 with up-to-date amendments and revisions and special requirements if any of the M.P. State Electricity Board or Chief Electrical Advisor to Government of Madhya Pradesh cum Chief Electrical Inspector and his subordinate office.
2. The contractor shall ***make his own arrangements for supply of water and electricity*** at his expense required for execution of work. The USCL shall neither make any such arrangements nor shall make any payments in this regard.
3. The contractor has to ***construct at his own cost his site office and store at site on a suitable place and location as permitted by USCL***. The USCL shall not provide any place or room in the building under construction for storage of equipment's required for work. No amount shall be paid to the contractor in this regard. The site office shall have also an arrangement of one room for office of Employers representatives. No additional cost shall be paid for same.
4. ***Proper upkeep and maintenance and safety of store and stocks of materials brought at site shall be the sole responsibility of the contractor***. The materials got damaged due to negligence of its up keeping at site or due to mishandling shall have to be replaced by the contractor at his own cost. On discovery of such damages the USCL shall recover the amount paid through the running bills to the contractor and shall only be reimbursed after the replacement of the same. The USCL shall also not be responsible for theft of materials from site and the contractor has to replace all such materials at his own cost. No compensation whatsoever shall be payable to the contractor on above grounds.
5. ***Time*** being the essence of the contract, the contractor shall ***before drawl of agreement prepares a detail time bound work execution program which shall be approved by Engineer in charge***. The contractor has to execute the work in strict accordance to the time bound execution program (The contractor shall submit the planned as well as executed work in file compatible with Microsoft Project) submitted by him, mutually agreed, approved.
6. Time schedule can be revised by the USCL for any unforeseen unavoidable reasons whatsoever. It may be necessary to stop the work at certain place due to some unavoidable reasons and restart the work at later date. Such contingencies shall not vitiate the contract and shall not be considered a ground for extra claim for any reason whatsoever. However time extension shall be allowed only for such days for which the work was stopped by USCL.
7. The contractor shall not be entitled to any compensation for any loss suffered by him on account of delay in commencement or execution for work whatever the cause of delay may be including delay arising out of other materials, supply of materials, transportation for any matter related with MPPKV Co. Ltd. & Electrical Safety Department or any other reasons whatsoever, the USCL shall not be liable for any claim in respect thereof.
8. Rate quoted shall be applicable for works at all height unless otherwise specified in the schedule of quantities.
9. The contractor shall submit test reports of the equipment's to be supplied and drawings for approval of the Engineer in charge before supplying/Installation the equipment. The successful tenderer shall also submit the purchase bill of all items as required and directed at no cost.
10. The contractor shall have to arrange all free of cost facilities for the inspection, such as employ or material labor etc. and any fees payable to Government or any competent authority at his own cost.
11. The consultant / Contract employees appointed by USCL are authorized for following:
 - a) To visit the site from time to time to inspect the quality of work.

- b) To check / issue working drawings with specifications to the contractor.
 - c) Technically guide the contractor if required.
 - ~~d) To accompany USCL officials for factory inspections of material if required.~~
12. The contractor shall be responsible for removal of all defects and shall make rectification in the work at his own cost if any at the time of handing over without any claim for compensation.
 13. The contractor has to quote his rates for items in strict accordance to the list of approved make of materials. The tenderer has to ensure before filling up the rates regarding their availability and period of delivery.
 14. The contractor shall note that during the execution of works there is likelihood in charge of site/ specification and change in quantities of items entered in the schedule of items for which the contractor has tendered his rates. The increase or decrease in the quantities of such items may be up to any extent and the tenderer shall not be entitled to any compensation for any loss suffered by him on account or procurement of additional quantities of such items due to such changes.
 15. Time schedule may be revised by the USCL from time to time keeping in view of the approval of concepts / drawings or items or for any reasons whatsoever. It may be necessary to stop the work at certain places due to some unavoidable reasons and restart the work at later date. Such contingencies shall not vitiate the contract and shall not be considered a ground for extra claim.
 16. The contractor shall not be entitled to many compensations for any loss suffered by him on account of delay in commencement or execution of work whatever the cause of delay may be including delay arising out of other materials or any reasons whatever and the USCL shall not be liable for any claim in respect thereof.
 17. The Contractor shall:
 - a. comply with all applicable safety regulations,
 - b. take care for the safety of all persons entitled to be on the Site,
 - c. use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to the persons. provide fencing, lighting, guarding and watching of the Works until completion.
 18. Provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and workers.
 19. The Contractor has to ensure that the works included in this contract are done in strict accordance with all approved concepts and specifications and in accordance with manufacturer's instructions for application.
 20. The site shall have to be sprinkled with water so that dust settles down. Dust control sprinkling shall have to be done several times a day during hot, dry weather depending on the site requirement.
 21. Contractor shall ensure safe workplace and shall install safety signs.
 22. The excavation is to be done carefully to avoid damage to underground cables and other service lines.
 23. Appointment of Agency will be done on lowest rate quoted in tender, Quantity and place of work shall be decided by the authority and shall be binding to Successful bidder.
 24. **Order of precedence**
 - In a situation of contractual disputes or ambiguities the priority of documents is set out as
 - a. the Contract Agreement (if any).
 - b. any Addenda / Corrigendum
 - c. the Letter of Acceptance. (if any).
 - d. the Letter of Tender. (if any).
 - e. the Particular Conditions.
 - f. General Conditions,

- g. Site Works Instructions
- h. the Specification.
- i. the Drawings, and
- j. the Schedules and any other documents forming part of the Contract.

25. Extra items

All such items which are not included in the priced BOQ shall be treated as extra items.

26. Payments for Variations and / or Extra Quantities

The rates for such additional (Extra quantity), altered or substituted work / extra items under this clause shall be worked out in accordance with the following provisions in the irrespective order:

- a. The contractor is bound to carry out the additional (Extra quantity), work at the same rates as are specified in the contract for the work.
- b. If the item is not in the priced BOQ and is included in the SOR of the department (UADD -SOR 2021) applicable from 2nd August 2021), the rate shall be arrived at by applying the quoted tender percentage on the SOR rate. If the Items are not available in UADD SOR , then items will be adopted in following descending Priority
 - MPPKVVCL SOR (on which tender has been invited)
 - MP PWD SOR
 - MP PHE Unified SOR
 - MP WRD SOR
 - CPWD – Delhi Schedule of Rates
 - CSR – Punjab
 - INTAC SOR for Building.
 - RUIDP Heritage SOR
- c. If the rates for the altered or substituted work are not provided in applicable SOR - such rates will be derived from the rates for a similar class (type) of work as is provided in the contract (priced BOQ) for the work.
- d. If the rates for the altered, substituted work cannot be determined in the manner specified in the sub clause (c) above - then the rates for such composite work item shall be worked out on the basis of the concerned Schedule of Rates minus/plus the percentage quoted by the contractor.
- e. If the rates for a particular part or parts of the item is not in the Schedule of Rates and the rates for the altered, or substituted work item cannot be determined in the manner specified in sub clause (b) to (d) above, the rate for such part or parts will be determined by the Competent Authority, as defined in the Contract Data on the basis of the rate analysis derived out of prevailing market rates when the work was done.
- f. But under no circumstances, the contractor shall suspend the work on the plea of non-acceptability of rates on items falling under sub clause (a) to (e). In case the contractor does not accept the rate approved by the Engineer in Charge for a particular item, the contractor shall continue to carry out the item at the rates determined by the Competent Authority. The decision on the final rates payable shall be arrived at through the dispute settlement procedure.

27. No compensation for alterations in or restriction of work to be carried out.

28. COVID-19 Health and Safety Protocols

General Obligations of the Contractor:

- To take all necessary precautions to maintain the health and safety of the Contractor's Personnel.

- To ensure, in collaboration with local health authorities, access to medical help, first aid and ambulance services are available for workers/labors, as and when needed.
- Provide health and safety training/orientation on COVID19 to all workers and staff and other employees of the sub-contractor (tips on cough etiquette, hand hygiene and social distancing).
- Prepare a detailed profile of the project work force, key work activities, schedule for carrying out such activities, different durations of contract and rotations, confirmed addresses of the labor and any underlying health conditions that increases the risk of severe infection, to facilitate tracking of workers in case of COVID-19 exposure.
- All laborers to be provided with photo ID cards for accessing the construction site.
- All laborers engaged at construction site to be provided with the required Personal Protection Equipment (PPE) – safety helmet and shoes, secured harness when working at heights, electrical gloves, eye protection for welding etc., without which entry to the construction site shall not be allowed.
- In relation to COVID19, masks, adequate hand washing/ sanitization, clean drinking water and sanitation facilities to be provided at construction site.
- All workers/labor to be regularly checked for symptoms before allowing entry to the work site.
- Paid leave to be mandatorily given if labor contacts COVID-19 and/or any other contagious disease while working at the construction site or in the labor camp.

For Labour Camp:

- Contractor to provide hygienic living conditions and safe drinking water.
- Separate toilets for male and females and adequate hand washing/sanitization facilities.
- Monthly/weekly health check up to be organized at the camp for all labors/family.
- Organize awareness campaign for social distancing and general health and hygiene.

Construction Management in Upgrading of Existing Facilities:

- Maintain a roster of workers/staff at work site indicating their health condition and symptoms and ensure screening procedures (non-physical temperature measurement) at work sites.
- Depute and assign monitoring and reporting responsibilities on environmental management, health and personnel safety.
- Preventing a worker from an affected area or who has been in contact with an infected person from returning to the site for 14 days or (if that is not possible) isolating such worker for 14 days.
- Place posters and signage's at/around the site, with images and text in local languages relating to personal safety, hygiene and on COVID-19 symptoms and guidelines.
- Ensuring hand washing facilities supplied with soap, disposable paper towels and closed waste bins exist at key places throughout site, including at entrances/exits to work areas; where there is a toilet, canteen or food distribution, or provision of drinking water; in worker accommodation; at waste stations; at stores; and in common spaces.
- Segregate lunch hours at worksite of workers to maintain social distancing.
- Securing the construction site with entry only for authorized personnel and disinfecting of the worksite to be undertaken at close of work every day or as may be required.
- Any medical waste produced during the care of ill workers should be collected safely in designated containers or bags and treated and disposed of following relevant requirements (e.g., Biomedical Waste Rules-2018, WHO).

29. Coordination with other Contractors

Due to the peculiar nature and location of the project, and in view of the objective of proper laying of all utility services, and adjacent works being done by other contractors the different contractors will need to work simultaneously and ensure proper mutual coordination. EMPLOYER reserves the right to require each Contractor to schedule the order of performance of their Work in such a manner as will minimize interference with work of any of the parties involved.

30. Photographic record of works

All the processes of conservation works should be well documented before , during and after execution of the works through photographs by the contractor's team and submitted to the USCL. Project regularly, supported with relevant photographs. These photographed should be saved date wise as per work description

31. Add the following Additional Clause 17.5 under C. Quality Control, 17 – Tests in GCC (General Conditions of Contract)

17.5 Third Party Inspection

17.5.1 The bidder will also facilitate third party quality control and inspections on behalf of Engineer in charge as required. All the cost of third party inspection shall be born by the contractor and the contractor shall the quote accordingly.

17.5.2 The inspection and testing of the samples from a lot will be carried out by the employer and or inspecting agency approved by the employer, in the manufacture's workshop, before application of any paint. All the tests, as required as per the IS, shall be carried out on samples from each lot (number of samples from a lot shall be as per the relevant IS for sampling and testing), in presence of the inspecting agency. The materials will be dispatched only after issue of the test certificate by the inspecting agency for satisfactory performance of the tested materials. The inspection charges for such tests shall be paid by the contractor to the inspecting agency, No Reimbursement shall be made for the same and the rates quoted for this bid shall include these costs also.

17.5.3 Ten percent (10%) of the mandatory test prescribed under the specification shall be got carried out through laboratories accredited by national Accreditation Board of laboratories (NABL) By the Engineer-in-charge and the cost of such testing shall be deducted form the payments due to contractor .

17.5.4 The supplier shall give the inspection notice before or at least 10 days prior to the last date of supply of material. The material will be dispatched by the supplier after inspection by the representative of USCL. The supplier is required to dispatch the material within 10 days from the date of acceptance of material. In case the time taken in dispatch the material exceeds 10 days, the excess period shall be counted for levy of penalty. USCL's representative will visit the manufacturer's work and witness the tests as per specifications on each type of lighting fixtures as per the samples selected by USCL's representative. The sample of the material may also be sent to the government approved NABL laboratory at the cost of supplier for any kind of specific test required by USCL. Supplier shall submit the schedule with date, time & venue of the inspection to USCL in writing for the inspection of the material. USCL is authorized to get the material tested from the approved laboratory at the supplier cost for any kind of specific test if required. The contractor needs to make arrangements for Factory Inspection at his own cost for Luminaires, Brackets. INSPECTION WILL BE CARRIED OUT AT MANUFACTURER PREMISISONLY. It will not be permitted at vendor's place.

32. The contractor may have to do only manual excavation on site. The payment for same shall be as per BOQ / UADD SOR / Other SOR

33. If any heritage structure / Article etc. is encountered / found at site during Excavation, then the work has to stopped by the contractor till its solution/ Decision. No compensation shall be given to contractor for delay caused due to stopping of work except

Annexure - Y
(See Contract Data, Point No 13.1)

PROCESS PARAMETERS -			
Sr. No.	MIS Report	Frequency of Submission	Submission Date
1	Construction Schedule	Monthly	1 st of every month
2	Plan vs Achievement Report - Turnover (WD Status)	Weekly	
3	Daily Progress Report/Daily Labour Report / Including Gender segregated Labour report.	Daily	-
4	Material Identification/Tracker	Process	-
5	Monthly Dia-wise Steel & Cement requirement	Monthly	1 st of every month
6	Drawing Register	Process	-
7	Fortnightly Labour Report	Fortnightly	7th / 22nd
8	Material Stock Report	Monthly	7 th of every month
10	Hinderance Register Copy	Monthly	7 th of every month

SECTION 4

Bill of Quantities

Preamble

1. Bill of Quantities shall be read in conjunction with the Instruction to Bidders, Conditions of Contract Specifications and Drawings.
2. For the construction of works, the quantities given in the Bill of Quantities are Estimated and are given to provide a common basis for bidding. The basis of Payment will be actual quantities of work ordered and carried out, as measured By the Contractor and verified by the engineer and valued at the rates and Prices tendered in the Bill of Quantities in the case of items rate tenders.
3. This preamble to the BOQ shall form part of the Contract. If there is inconsistency between the BOQ, Technical Specifications and Drawings and in case of conflict among different sections/heads, precedence shall be given in the following order of ascending priority:
 - I. Bills of Quantities and Preamble to the Bills of Quantities;
 - II. Technical Specifications;
 - III. Drawings;
 - IV. Relevant Indian or International Standards.
4. The Contractor shall be deemed to have visited the site and read and examined the Tender/RFP Documents before completing the Bill of Quantities. The Drawings, Specifications, Schedules etc. are to be considered as explanatory of each other and no advantage shall be taken of any omission in Tender / RFP document.
5. The Contractor shall be deemed to be fully conversant with and to have made full allowance in his bid for the site conditions, the nature and complexity of the work to be undertaken, the other extensive development and construction work currently being or which may be executed on and around the Site and all changes in the nature and condition of the Site from that existing at the time of Tender.
6. General directions and descriptions of work and materials given in the Specification or shown on the Drawings are not necessarily repeated in the Bill of Quantities and reference is to be made to the Specification and the Drawings for this information.
7. The Bill of Quantities is an estimate of the quantities of work involved and is to be used as a basis for pricing of the bid and for valuation of the work executed, in conjunction with instructions to bidders, terms and conditions of contract, general and specific technical specifications and drawings.
8. The quantities given in the BOQ are estimated and provisional and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured and verified by the Engineer-in-charge, and valued at the rates and prices bid in the priced BOQ, where applicable, and otherwise at such rates and prices as the Engineer in Charge may fix within the terms of the Contract.
9. The rates and prices tendered / quoted in the schedule shall be the all inclusive value for the work described and be deemed to include for all the Contractor's liabilities and obligations and all risks set forth or implied in the document and all matters and things necessary for the proper construction, of the Works **including surveying, setting out, plant, labour, supervisor, materials, erection, maintenance, insurance, profit, taxes and duties together with all general risks liabilities and obligations set out or implied in the Contract.** The rates shall be

excluding of GST, which shall be paid on actual at prevailing rates. The Charge for any obligation of the Contractor for proper/satisfactory completion of work for which apparently no corresponding item is given in the Bills of Quantities shall be deemed to be included in the Contract Rates and Prices entered against the billed items.

The contractor will have to ensure all their equipment/machinery, staff including skilled and unskilled labour and protection against damages to third party for which they will have to provide insurance policies to cover up all of above. Moreover, they will renew the policies before their expiry. It is mandatory to comply with the condition, otherwise they will not be allowed to proceed with the work.

10. In case of item rate tender, a rate or price shall be entered against each item, whether quantities are stated or not. The cost of items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other items, rates and prices entered in the BOQ.
11. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the Rates and Prices entered for the related Items of Work.
12. General directions and descriptions of work and Materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
13. The method of execution and measurement of completed work for payment shall be in accordance to the respective procedures provided in the Technical Specifications or Particular Specifications under this Contract and in the absence of which shall be in accordance to the relevant BIS Standard and Standard Specification of the UADD / Standard Specification published by the Central Public Works Department, Government of India as the case may be.
14. All defective works are liable to be demolished, rebuilt and defective materials replaced by the contractor at his own cost and time.
15. In view of the site location and their prevailing condition, it is mandatory to the Contractor to visit the site and make himself thoroughly familiar with the site conditions, access and account for all possible difficulties and other requirements mentioned elsewhere in their bid prior to submission. When a contractor submits their bid for this work, it will be considered that they have quoted for this work with full and complete knowledge of the site and prevailing conditions, and no claim for additional compensation shall be entertained on this account
16. Description of items in this BOQ is by itself not complete, and for a full description the BOQ should be read together with the Technical Specifications and Drawings. Rates quoted in the BOQ are deemed to have included all aspects covered in the Preamble and Technical Specifications, and all features and details shown in the Drawings.
17. The Bidder shall, in the course of studying the Contract Agreement, point out all his/her remarks on the documents and make all his/her queries to the Employer who will study these remarks and clarify any discrepancy between the Bidding Documents in the pre-bid meeting.
18. Submissions shall be strictly in accordance with the documents and shall not be qualified in any way. The Bidder shall not alter the text of the BOQ.
19. Extra and excess items of work shall not vitiate the Contract. The Contractor shall be bound to execute extra items of work as directed by the Engineer. The rates for extra items will be as per rates decided under Contract Conditions.
20. The Bidder shall satisfy himself/herself as to the meaning of every item in the BOQ. The rates (percentage Above Below) / prices quoted in the BOQ by the bidder shall be deemed to cover

all costs, taxes, customs and import duties, levies, profits, risks, liabilities, transit insurance and obligations set forth or implied (excluding GST) in the bid, for the management of the Works including, but not limited to the following:

- (i) All labour and Materials including consumables;
 - (ii) All temporary work of every description required including over ground pumping and other requirements to avoid disruption to the service whilst maintenance or repair work is carried out;
 - (iii) The provision and use of all equipment, tools and Plant of every kind, whether mechanical or non-mechanical, required for the expeditious carrying out of the Works in their proper sequence;
 - (iv) Provision for scaffolding, staging, guard rails, temporary stairs, temporary access during execution, approach roads up to the Site for the movement of vehicles, and heavy excavation machinery with supporting transport facility;
 - (v) Provision for excavation, back-filling, bringing to the Site extra fill for back-fill, making good and reinstating surfaces, disposing of surplus material, dealing with all ground water and wastewater flows, and for work in close proximity to other utility apparatus including protecting that apparatus;
 - (vi) Provision such as traffic control measures, safety barriers, obtaining any approvals and permits from authorities, and signage and reinstatement of surfaces;
 - (vii) Cooperation and coordination of the work with related authorities, other contractors and utilities, including obtaining their permission before starting the related Works if required; and
 - (viii) Providing security arrangements to guard the Site and premises at all times and to maintain strict control on the movement of Materials and labour until the completion of the work.
21. The serviceable materials, recovered as ascertained by the Engineer, shall be deposited at designated store yards or as directed by the Engineer. No payment shall be made to the Contractor in this regard.
22. All rules and regulations of the labour department, contract labor Laws, provident fund and employee state insurance and connected Laws, and all other Laws of the land are to be complied with by the Bidder within the quoted rates.
23. The cost of all necessary items incidental to the works proposed under the contract, but not included in the BOQ, shall be carried out by the contractor at no extra cost.
24. The bidder is expected to inspect the Site to investigate the following items before quoting their rates in the tender:
- a) Nature and type of soil proposed for excavation and safety of excavation;
 - b) Availability of power for execution;
 - c) Availability of water for execution;
 - d) Means of disposal of storm water/bailing out water from the Site;
 - e) Means of disposal of water due to de-watering at the Site;
 - f) Nature and type of protection required for neighboring property to ensure full safety during construction activities in progress; and

- g) Place for disposal of serviceable / unserviceable material obtained during construction activities in progress.
25. No land will be provided by the Employer to the Contractor for constructing any structure for his labor, workman and supervisory camps, un-authorized hutments, canteen or teashops at the Site or within the premises. The Contractor shall make his/her own arrangements for the same outside the premises/boundary. These, if any, shall be with the knowledge of and prior approval of the Engineer in Charge.
- 26. Provisional Sums (if applicable)**
- The Provisional Sum included and so designated in the BOQ shall be expended in whole or in part at the direction and discretion of the Engineer in Charge in accordance with the Conditions of Contract. It will be used by the Engineer in Charge for conducting Environmental tests as per ESMF., or as directed by the Engineer in Charge.
- 27. Measurements:**
- 27.1 It is to be expressly understood that the measured work is to be taken net (notwithstanding any system or practice to the contrary) according to the actual quantities wherein finished according to the Drawings as may be ordered from time to time by the Engineer and the cost calculated at the respective prices, without any additional charges for any necessary or contingent works connected therewith. The rates quoted are for works in situ and complete in every respect. Unless the Bill of Quantities specially indicates to the Contrary, the constructional plant and temporary works will not be measured. Any item of work which is specified and required for the proper management of Works, and not included or itemized in the BOQ, shall not be measured nor paid for separately but shall be deemed to have been allowed for by the Contractor as part of their Price Bid. Unless otherwise stated, all items are measured net and no allowance will be made for wastage, working space, bulking or shrinkage, overlaps and the like.
- 27.2 The method of measurement of completed works for payment shall generally be in accordance with the relevant Indian Standard Specifications. IS:1200 (Part XVI) - 1979 Method of Measurement of Building and Civil Engineering Works. Laying of Water and Sewer Lines Including Appurtenant Items (Third Revision) and Part XIX - 1981 Water Supply, Plumbing and Drains (Third Revision) unless described otherwise in the following clauses.
- 28. Approach to Work Site**
- Provision for access and approach to all construction sites is the responsibility of contractor and no payment will be made on this account.
- 29. Safety**
- The contract rates shall be deemed to include all costs of compliance with safety requirements in the Specification.
- 30. Coordination and Interfaces with other Contracts**
- The contractor shall carryout his work in close coordination with the other contractor's works of concurrent Packages of the Project. Work under this package may have interface with other works of concurrent.
- 31. Mostly UADD SOR Volumes I to IV have been used (Indicated in each of price schedule). For items where UADD SOR has not been used, it has been indicated in the corresponding items.**

SECTION 5

AGREEMENT FORM

AGREEMENT

This agreement, made on the _____ day of _____ between: _____ (name and address of Employer) (hereinafter called "the Employer) and _____ (name and address of contractor) hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that the Contractor execute _____ (name and identification number of Contract) (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein, at a cost of Rs.....

NOW THIS AGREEMENT WITNESSED as follows:

1. In this Agreement, words and expression shall have the same meaning as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other Sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.
 - i. Letter of Acceptance
 - ii. Contractor's Bid
 - iii. Condition of Contract: General and Special -
 - iv. Contract Data
 - v. - Bid Data
 - vi. Drawings
 - vii. Bill of Quantities and
 - viii. Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed where of the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of _____ was hereunto affixed in the presence of:

Signed, Sealed and Delivered by the said _____ in the presence of:

Binding Signature of Employer _____

Binding Signature of Contractor _____

BILL OF QUANTITIES (BOQ)

“Construction of Shed and supply, installation, commissioning of RO water Treatment plant for Pilgrims in Mahakaal Lok Project, Ujjain.”						
S. No.	UADD SOR 2021.	DESCRIPTION OF ITEM	UNIT	Qty	RATE	Amount
1	15.2	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 meters lead as per direction of Engineer-in-charge.	Cum	10.8	₹ 389.00	₹ 4,201.20
2	15.23	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 meters lead.	Sqm	72	₹ 79.00	₹ 5,688.00
3	2.6	Earth work in excavation for foundation, trenches for pipes / cables or drains etc. by mechanical means / manual means (exceeding 30cm in depth.) including ramming of bottom, dressing of sides, disposal of excavated earth including of all lift and lead upto 50m. Disposed earth to be levelled and neatly dressed.				
	2.6.1	All kinds of soil	Cum	144	₹ 151.00	₹ 21,744.00
4	2.18	Supplying and filling in plinth under floors including,				

		watering, ramming consolidating and dressing complete.				
	2.18.1	Moorum/Hard copra	Cum		₹478.00	₹ 0.00
5	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering All work up to plinth level.				
	4.14	Cement concrete grade M-10 (Nominal Mix) with 20 mm maximum size of stone aggregate	Cum	7.2	₹4,219.00	₹ 30,376.80
6	5.21	Providing and laying in position machine batched and machine mixed and machine vibrated design mix cement concrete of M-25 grade mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement. Including Admixtures in recommended proportions as per IS 9103 to accelerate, retard setting of concrete, improve workability without				

		impairing strength and durability as per direction of Engineer-in-charge.				
	5.21.1	Upto Plinth level				
			Cum	6.432	₹5,547.00	₹ 35,678.30
	5.21.2	Above Plinth upto floor 2 level				
			Cum	23	₹5,701.00	₹ 131,123.00
7	5.11	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding upto floor level including cost of binding wire, wastage and over laps upto 12mm horizontal/ inclined position of reinforcement bars in slab and beams, plinth, chajjas, lintels, upto 4.5m vertical length of reinforcement in wall columns (over laps shall be provided as per requirement of IS :				

		13920; IS 456 & SP :34) etc. complete.				
	5.11.4	Thermo-Mechanically Treated bars. (Fe 500 D or more)	Kg	1886.3	₹58.00	₹ 109,405.40
8	19.1	Centering and shuttering including strutting, propping stretching etc. complete for and removal of form work by sheet plate or ply wood shuttering for :				
	19.1.1	Foundations, footings, bases of columns, etc. For mass concrete.				
		PCC	Sqm	7.20	₹160.00	₹ 1,152.00
		Raft	Sqm	17.28	₹160.00	₹ 2,764.80
		Column	Sqm	22.40	₹160.00	₹ 3,584.00
	19.1.2	Walls (any thickness) including attached pilasters, buttermesses, plinth and string courses etc				
		Plinth Beam	Sqm	38.40	₹289.00	₹ 11,097.60
	19.1.3	Suspended floors, roofs, landings, balconies and access platform.				
		Slab	Sqm	64.00	₹289.00	₹ 18,496.00

	19.1.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers.				
		Beam	Sqm	38.40	₹289.00	₹ 11,097.60
	19.1.6	Columns, Pillars, Piers, Abutments, Posts and Struts.				
		Column	Sqm	44.80	₹289.00	₹ 12,947.20
	19.1.6	Columns, Pillars, Piers, Abutments, Posts and Struts.				
		Column	Sqm	44.80	₹289.00	₹ 12,947.20
9	6.17	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, class designation 75 Kg/CM2 (average compressive strength) in superstructure above plinth level up to floor 2 level including the cost of scaffolding :				
10	6.17.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	20.92	₹4,992.00	₹ 104,412.67
	13.1	12 mm cement plaster of mix :				
	13.1.1	1:4 (1 cement: 4 sand)	Sqm	384	₹149.00	₹ 57,216.00
11	13.4	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50grams/ litre. of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
	13.40.2	Two coats.	Sqm	336	₹78.00	₹ 26,208.00

12	13.41	Applying one coat of cement primer of approved brand and manufacture on wall surface : Cement primer	Sqm	336	₹32.00	₹ 10,752.00
13	2.16	Filling by available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	137.57	₹53.00	₹ 7,291.10
14	10.15	Steel work in built up M.S. tubular section (round, square or rectangular Hollow tube etc.) trusses/frame work etc./ railing work etc. including cutting, hoisting fixing in position and applying a priming coat of approved steel primer, welded and bolted including special shaped washers etc. complete.				
	10.15.1	Hot finished welded type tubes.	Kg	100.00	₹99.00	₹ 9,900.00

15	7.23	Stone work (machine cut edges) for wall lining etc. (veneer work) backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment matching the stone shade : (To be secured to the backing by means of cramps which shall be paid separately) :				
	7.23.4	White sand stone - Exposed face machine cut and table rubbed with rough backing.				
	7.23.4.2	60 mm thick	Sqm	300.00	₹2,926.00	₹ 877,800.00
16	7.25	Providing and fixing stainless steel cramps of required size and shape for anchoring stone wall lining to the backing or securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 coarse sand) including making the necessary chases in stone and holes in walls wherever required.	Kg	104.00	₹626.00	₹ 65,104.00

17	7.33	Providing and fixing stone jali 40mm thick in cement mortar 1:3 (1 cement : 3 coarse sand) including pointing in white cement mortar 1:2 (1 white cement : 2 Marble dust) with an admixture of pigment, matching the stone shade, jali slab without any chamfers etc. 7.33.2 White Sand Stone	Sqm	5.76	₹5,003.00	₹ 28,817.28
18	9.18	Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters using following hinges.				
	9.18.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.	Sqm	5.04	₹2,181.00	₹ 10,992.24
					Total	₹ 1,610,796.40
	Electrical Works					

19	NSR	Supply, Installation, testing and commissioning of RO water plant of 1000 LPH, FRP pipe line and fitting, MS water tank stand 2000 ltr. With water tank 2000 Ltr. 1 number and storage stainless steel water cooler of 500 litre capacity of standard specification, Earthing of all equipments and other units shall be included as per design attached in the scope of work or as per approval of Engineer-in-charge.	Nos.	2.00	₹412,000.00	₹ 824,000.00
20	UADD SOR 2021 Vol. IV 9.36	Supplying, erecting and testing of approved make Exhaust Fan heavy duty with mounting frame, blades AC 230-250 complete connection and including, frame bolt/ Anchor hole fasteners etc. complete finished and as required.	Each	4.00	₹2,520.00	₹ 10,080.00
21	UADD SOR 2021 Vol. IV 1.5.3	POWER WIRING IN SURFACE RIGID P.V.C.CONDUIT (HEAVY DUTY) SYSTEM WITH MODULAR ACCESSORIES				

		Point wiring including metallic switch box, sheet, for 3 Pin 16 Amp. Socket Outlet Point With 4 Sq. mm. PVC insulated cable FR with copper multi strand conductor ISI marked in Surface rigid P.V.C.Conduit (MMS) ISI Marked of suitable size including painting etc. with 16 Amp. F.T. Switch & Socket / S.S.Combined 16 Amp. of ISI Marked and 4 Sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit as per specification for :-				
		On Separate Board				
		C. Long Point	Each	10.00	₹1,520.00	₹ 15,200.00
					Total	₹ 849,280.00
					Total C= A+B	₹ 2,460,076.40