

Ujjain Smart City Limited



Request for Proposal

for

“Development Works at Siddhwat Ghat, Ujjain”

NIT No. USCL/424

Tender ID: 2026_UAD_497025_1 Ujjain Date: 03/04/2026

.....
.....
Ujjain Smart City Limited
Mela Office, Kothi Road,
Ujjain, Madhya Pradesh – 456010



Ujjain Smart City Limited

Mela Office, Kothi Road,

Ujjain, Madhya Pradesh – 456010

Phone No. 0734 2520319; E-mail: ujjainsmartcity@mpurban.gov.in

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

NIT No. USCL/424 Tender ID: 2026_UAD_497025_1 Ujjain Date: 03/04/2026

Ujjain Smart City Limited (USCL) invites online bids from eligible bidders for **“Development Works at Siddhwat Ghat, Ujjain”** as per details given below:

SNo	Particulars	Details
1	Name of Work and Site	Development Works at Siddhwat Ghat, Ujjain
2	Cost of Tender Document / Bid submission Fee	Rs 30,000/- plus GST
3	Earnest Money Deposit (EMD) / Bid Security	Rs 6,17,984/- (Rupees Six lacs Seventeen thousand nine hundred eighty four only)
4	Probable Amount of Contract (PAC)	Rs. 12,35,96,642/- (Rupees twelve Crores Thirty Five lacs ninety six thousand six hundred forty two only) (Excluding GST)
5	Purchase of Tender Date	03/04/2026
6	Pre-bid Meeting	10/04/2026 Time 15:00 hrs. at Mela Karyalaya Office, Kothi Road, Ujjain
7	Purchase of Tender End Date	28/04/2026 up to 17:00 hrs.
8	Financial and Technical Bid Submission End Date (Online)	28/04/2026 up to 17:00 hrs.
9	Technical Bid Submission End Date (Physical Only)	Not Applicable
10	Technical Bid opening	29/04/2026 after 17:00 hrs.
11	Financial Bid opening	To be notified
12	Completion Period	Twelve (12) Months
13	Validity period of Bids	120 Days after the Last date of Submission
14	Mode of selection of Contractor	Open Tender through e-procurement. The contract shall be awarded to the Lowest (L1) responsive bidder meeting all eligibility criteria.

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/424

Date of NIT : 03/04/2026

Agreement Number and Date :

Name of Work : **Development Works at Siddhwat Ghat, Ujjain**

Name of the Contractor :

Probable Amount of Contract : **Rs. 12,35,96,642/-** (excluding applicable GST)
In Fig :
In words : (Rupees twelve Crores Thirty-Five lacs ninety-six thousand six hundred forty-two only only)

Contract Amount :
In Fig :
In words :

Stipulated Period of Completion : **12 (Twelve) Months including intervening rainy season**

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SECTION 1
Notice Inviting e-Tenders
Ujjain Smart City Limited

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S. No.	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	Development Works at Siddhwat Ghat, Ujjain	Rs. 12,35,96,642/-	Rs 6,17,984/-	Rs. 30,000/-	12 Months (Including intervening rainy season)

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

Details can be seen in the Bid Data Sheet. The above details are to be submitted online only.
4. **Eligibility for Bidders:**
 - a. The Bidder shall be a Company incorporated under the Companies Act, LLP, Partnership Firm, or Proprietorship Firm; registered under applicable laws in India and operational for at least last three (3) years.

In case of Proprietorship Firm, the bidder shall be required to submit valid registration documents, GST registration, PAN, and certified financial statements. The Authority reserves the right to apply additional scrutiny regarding financial and technical capacity, and may require enhanced performance security to safeguard contract performance.
 - b. 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.
 - c. 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.
 - d. The bidder would be required to have valid registration with MPPWD in appropriate class at the time of signing of the Contract.
 - e. Failure to sign the contract by the selected bidder, for whatsoever reason, shall result in forfeiture of the earnest money deposit.
5. The Bid Document can be purchased only online as per brief NIT Other key dates may be seen in bid data sheet.
6. 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/424

Dated. 04/04/2026

Online percentage rate bids for the following works are invited from registered contractors and firms of repute fulfilling registration criteria:

S. No.	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	Development Works at Siddhwat Ghat, Ujjain	Rs. 12,35,96,642/-	Rs 6,17,984/-	Rs. 30,000/-	12 Months (Including intervening rainy season)

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

2. GENERAL QUALITY OF WORK:

2.1. The work shall have to be executed in accordance with the drawings prepared by USCL/ Consultant (except for stone artwork and artforms) 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 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. Envelop 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 fanatical 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 / 424
3	Date of NIT	03/04/2026
4	Bid document download available from date & time	03/04/2026
5	Website link	https://mptenders.gov.in
SECTION 1 – NIT		
CLAUSE REFERENCE	PARTICULARS	DATA
2	Portal fees	<i>As notified in e-tendering website</i>
3	Cost of bid document	<i>Rs 30,000/- + portal processing fees etc.</i>
	Cost of bid document payable at	<i>As notified in e-tendering website</i>
	Cost of bid document in favour of	<i>As notified in e-tendering website</i> (Bidders shall be directed to the payment gateway through the portal)
4	Affidavit format	<i>As per ANNEXURE B</i>
5	Pre-Qualifications required	Yes -
	If yes, details	<i>As per ANNEXURE C</i>
6	Special Eligibility	Yes
	If Yes, details	<i>As per ANNEXURE D</i>
7	Key dates	<i>As per ANNEXURE A</i>
SECTION 2 – IT B		
CLAUSE REFERENCE	PARTICULARS	DATA
1.	Name of ‘work’	Development Works at Siddhwat Ghat, Ujjain
2.	Specifications	<i>As per ANNEXURE –E</i>
3.	Procedure for participation in e-tendering	<i>As per ANNEXURE –F</i>
4.	Whether joint venture is allowed	No Maximum Two (2) Nos including Lead Bidder
	If yes, requirement for joint venture	<i>As per ANNEXURE – G</i>
	Pre bid meeting to be held	Yes
	If Yes, Date, Time & Place	<i>As per NIT</i> 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	<i>ANNEXURE – I and ANNEXURE –I (Format I-1 to I-5)</i>
	Envelope-C Financial Bid	<i>Annexure – J (SHOULD BE SUBMITTED ONLINE)</i>
	Materials to be issued by the department	<i>ANNEXURE – K</i>
	Period of Validity of Bid	<i>120 Days</i>
17	Earnest Money Deposit	Rs 6,17,984/-
	Forms of Earnest Money deposit	<i>e-EMD (RTGS / NEFT)</i>
	EMD valid for a period of	<i>120 Days beyond the final validity period of bids from the last date of submission of bids.</i>
19	Opening and evaluation of bid: Procedure	<i>Refer Annexure -00 at the end of Bid Data Sheet</i>
21	Letter of Acceptance (LoA)	<i>ANNEXURE L</i>
22	Amount of Performance Security	<i>Performance Security at the rate of three (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.</i>
	Additional Performance Security, if any	<i>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.</i>

	<p>मध्यप्रदेश शासन लोक निर्माण विभाग मंत्रालय</p> <p>कमांक-एफ-53/02/2011/सो/19 भोपाल, दिनांक //आदेश//</p> <p>मध्यप्रदेश शासन, लोक निर्माण विभाग द्वारा जारी आदेश कमांक-एफ-53/02/2011/सो/19/2022 भोपाल, दिनांक 10 अगस्त 2022 में अतिरिक्त परफॉर्मेंस गारंटी की राशि की गणना के लिए उल्लेखित गणितीय विधा के विन्दु कमांक 3(अ) एवं 3(ब) में निम्नानुसार संशोधन उपरान्त 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:- एफ.डी.आर. के रूप में प्रस्तुत की जाने वाली अतिरिक्त परफॉर्मेंस गारंटी की राशि:- 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:- 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 अर्थात कुल अतिरिक्त परफॉर्मेंस गारंटी की राशि- (A+B)= Rs. 18.00 लाख</p> <p>परिचय -Letter-2025-1</p> <p style="text-align: center;">/ 2 /</p> <p>3.4 ऐसे अनुबंध में जिनमें 10 प्रतिशत कम दर की सीमा से अधिक कम दरों पर अनुबंध निमादित किये जाने उन अनुबंधित कार्यों के पूर्ण होने के उपरान्त उनके अंतिम देयकों का भुगतान संबंधित अधीक्षण यंत्रों के निरीक्षण उपरान्त संतोषजनक पाये जाने पर तदनुसार अधीक्षण यंत्रों 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 कांक्रिट (RMC) प्लांट का अधीक्षण यंत्रों के द्वारा निरीक्षण किये जाने के उपरान्त 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 यंत्रों के द्वारा तथा राशि रुपये 10.00 करोड़ से अधिक के कार्यों के लिये स्थापित लेबोरेट्री का निरीक्षण मुख्य अभियंता द्वारा किये जाने के उपरान्त ही कार्य प्रारंभ किया जावे। अतिरिक्त परफॉर्मेंस गारंटी की एफ.डी.आर. कार्यपूर्णता के उपरान्त ही विमुक्त की जा सकेगी।</p> <p style="text-align: right;">(ए. आर. सिंह) उप सचिव</p> <p>म0प्र0 शासन, लोक निर्माण विभाग भोपाल, दिनांक 14/02/2025</p> <p>पृ. कमांक-एफ-53/02/2011/सो/19/525 प्रतिलिपि:-</p> <ol style="list-style-type: none"> 1. प्रमुख अभियंता, (सड़क/पुल) लोक निर्माण विभाग भोपाल। 2. प्रबंध संचालक, म.प्र. सड़क विकास निगम भोपाल। 3. प्रमुख अभियंता (भवन) लोक निर्माण विभाग भोपाल। 4. प्रबंध संचालक, म.प्र. भवन विकास निगम भोपाल। 5. विशेष सहायक, माननीय मंत्री जी लोक निर्माण विभाग भोपाल। 6. समस्त मुख्य अभियंता, (सड़क/पुल) लोक निर्माण विभाग। 7. समस्त मुख्य अभियंता, (भवन) लोक निर्माण विभाग। 8. समस्त अधीक्षण यंत्रों, लोक निर्माण विभाग मध्य प्रदेश। 9. समस्त कार्यपालन यंत्रों लोक निर्माण विभाग मध्य प्रदेश। 10. कार्यपालन यंत्रों, (भवन) लोक निर्माण विभाग मध्य प्रदेश। <p>की ओर सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषित।</p> <p style="text-align: right;">(ए. आर. सिंह) 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 Physical Completion Certificate plus Defect Liability Period plus, three months</i>
Additional Performance security valid up to	<i>Valid till issue of Physical Completion Certificate 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 क्रमांक401/सा/विविध/002/2014 /2012भोपाल,दिनांक 08-01-2015

² Deleted as EMD is paid online.

PRE- QUALIFICATIONS CRITERIA

The bidder should have:

A. Financial & Physical

i. Experience of having successfully executed as prime contractor:

- 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)

~~For the meeting the minimum qualification criteria of experience of similar nature work,~~

~~a) Out of 3 (three) similar works of value more than 20% of PAC, at least 2 (two) works must be done by lead partner and 1 (one) work to be done by other partner.~~

~~Or~~

~~b) Out of 2 (two) similar works of value more than 30% of PAC, at least 1(one) work must be done by lead partner and 1 (one) work to be done by other partner.~~

~~Or~~

~~e) In case of one similar work of value more than 50% of PAC the lead partner must satisfy the criteria. However, the other partner must satisfy the criteria of least one work of 20% of PAC.~~

- ii. **Average Annual Turnover** on the similar works/services **shall not be less than 50%** of the probable amount of contract during **the last 3 financial years ending on 31.03.2025.**
- 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 (PAC).**

Note:

1. **The similar work shall mean**

Temple / Heritage Building / Public Campus / Institutional Campus Development, including RCC + Architectural Stone + MEP and Landscaping works.

Projects may be executed for Government / PSU / Autonomous Bodies / Cultural institutions.

2. **The following shall not be considered as Similar Work:**

Development Works at Siddhwat Ghat, Ujjain.

Pure building construction without public realm component; Or Routine road works / resurfacing works; Or Only MEP works without civil component; Or Interior furnishing works

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

SPECIAL ELIGIBILITY CRITERIA

The Bidder shall demonstrate proven capability for at least one (1) completed project involving Architecture Stonework of 20% of PAC.

This experience may be part of a project or a standalone architecture stonework contract.

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

SCOPE OF WORKS & SPECIFICATIONS

Development Works at Siddhwat Ghat, Ujjain

1. Project Background

Ujjain, one of the seven sacred Suptapuris, is a prominent religious destination attracting large numbers of pilgrims throughout the year, particularly at **Siddhwat Ghat** located on the banks of River Kshipra.

Siddhwat precinct holds significant spiritual importance due to the presence of the sacred Vat Vriksha and associated temple complex. The site experiences high footfall during regular days and peak religious occasions.

The existing infrastructure at Siddhwat Ghat is inadequate in terms of organized circulation, visitor amenities, sanitation, parking, safety systems, and aesthetic coherence.

Based on the component assessment and site planning details, Ujjain Smart City Limited (USCL) intends to undertake comprehensive development works to transform the precinct into a well-planned, safe, and culturally integrated public space.

The project aims to enhance pilgrim experience, ensure efficient crowd management, improve infrastructure, and create a visually harmonious environment in line with the religious significance of the site.

2. Project Objectives

The key objectives of the Project are as follows:

- 2.1 To improve visitor circulation, queuing, and crowd management systems.
- 2.2 To provide essential public amenities including sanitation, drinking water, and changing facilities.
- 2.3 To develop organized parking and access infrastructure.
- 2.4 To enhance architectural aesthetics in harmony with temple character.
- 2.5 To ensure safety through surveillance and controlled access.
- 2.6 To promote organized commercial activity and local economy.
- 2.7 To strengthen riverfront (ghat) usability and safety.

3. Scope of Work

3.1 General Scope

- The scope of work shall include design validation, detailed engineering (where required), construction, installation, testing, commissioning, and handing over of all project components as per approved drawings.
- The Contractor shall execute all works on an item-rate (admeasurement) basis as per BOQ and specifications.

- The scope includes all civil, architectural, structural, MEP, ICT, landscaping, and allied works necessary for completion of the project in all respects.

3.2 Site Development & Circulation

- Development of internal roads (6.0 m and 4.5 m wide) including subgrade, base, and surfacing.
- Development of pedestrian pathways, ramps, and universal accessibility features.
- Integration with existing approach roads including KD Palace Marg side.
- Traffic and pedestrian movement planning as per approved layout.

3.3 Entrance Gate & Identity Features

- Renovation and architectural enhancement of entrance gate.
- Cladding and redesign of shikhara in temple architectural style.
- Provision of signage, wayfinding, and identity elements.

3.4 Parking Infrastructure

- Development of parking facilities for approximately 120 cars and 10 buses.
- Development of 2-wheeler parking with landscaping.
- Pavement works including marking, drainage, and lighting.

3.5 Commercial Development

- Construction of approximately 14–15 shops along plaza.
- Uniform façade treatment and signage control.
- Revamping of existing shop façades.

3.6 Queue Management System

- Development of covered queue area with capacity of approximately 1200 persons.
- Provision of barricading, circulation channels, and resting provisions.
- Integration of drinking water points and ventilation features.

3.7 Administrative & Service Buildings

- Construction of administrative building including office spaces and control room.
- Provision of Pandits seating building.
- Construction of security cabins at designated locations.
- Development of surveillance/control room.

3.8 Public Amenities

- Construction of toilet blocks (male, female, and accessible).
- Provision of shoe stand facility near temple entry.
- Construction of changing rooms along ghat.
- Provision of feeding room for infants.
- Installation of drinking water kiosks.

3.9 Religious & Cultural Elements

- Enhancement of main temple shikhara.
- Development of Vat Vriksha zone with Mata Parvati statue.
- Development of Parvati Maa Plaza including water feature.
- Installation of exhibition/wall art depicting historical and cultural narratives.

3.10 Ghat Development

- Repair, strengthening, and finishing of ghat steps.
- Provision of anti-skid stone flooring.
- Installation of railings and safety features.
- Development of access pathways to river.

3.11 Landscape Development

- Development of lawns, seating areas, and plantation.
- Hardscape works including paving, edging, and street furniture.
- Integration with plaza and temple surroundings.

3.12 Boundary & Security

- Construction of boundary wall around precinct.
- Provision of controlled entry/exit points.
- Installation of security infrastructure.

3.13 Electrical, ICT & Mechanical Works

- Site lighting including street, façade, and landscape lighting.
- Power distribution network and panels.
- CCTV surveillance system with centralized monitoring.
- Public address system.
- Solar lighting provisions where feasible.

3.14 Water Supply & Sanitation

- Internal water supply system.
- Sewerage and drainage system.
- Stormwater drainage network.
- Integration with municipal infrastructure.

3.15 Miscellaneous Works

- Signage systems (directional, informational, regulatory).
- Waste management infrastructure.
- Street furniture and public utilities.

4. Technical Specifications

4.1 General

- All works shall conform to:
 - o MP PWD SOR 2024
 - o Relevant BIS Codes
 - o National Building Code (NBC) 2016
- Non-SOR items shall be executed based on approved specifications and market-derived rates.

4.2 Civil & Structural Works

- RCC works shall conform to IS 456.
- Reinforcement steel shall conform to IS 1786.
- Masonry works shall conform to IS 1905.

4.3 Restoration Works

- Structural assessment and stabilization of Shikhara, Parapet walls, Load-bearing elements
- Crack stitching using heritage-compatible techniques
- Lime plaster restoration (NO cement plaster allowed)
- Stone repair/replacement using matching stone
- Surface cleaning and heritage treatment

4.4 Architectural Works

- Temple architectural elements shall use sandstone or approved equivalent materials.
- Finishes shall be weather-resistant and aesthetically aligned with temple architecture.

4.5 Roads & Pavements

- Parking areas shall be constructed using rigid pavement (M30 or as approved).
- Internal roads shall be bituminous or concrete.
- Footpaths shall be constructed using paver blocks or natural stone.

4.6 Roofing (Queue Area / Holding Area & Structures)

- Roofing for queue area, holding spaces, and associated structures shall be constructed using profile sheet roofing system integrated with shingles.
- The roofing system shall:
 - o Provide effective thermal insulation to reduce heat gain during summers
 - o Ensure waterproofing and durability during monsoon conditions
 - o Be corrosion-resistant (galvanized/colour-coated steel)
 - o Be designed to withstand local wind loads and environmental conditions
- The supporting structure shall be fabricated structural steel with proper anti-corrosion treatment and anchoring.

4.7 Plumbing & Sanitation

- Pipes shall be CPVC/HDPE or approved equivalent.

- Fixtures shall be water efficient and IS compliant.

4.8 Electrical Works

- All wiring shall be FRLS type.
- LED lighting fixtures shall be used throughout.
- Earthing shall comply with IS 3043.

4.9 ICT & Surveillance

- CCTV system shall provide full coverage of key areas.
- Minimum 30-day recording backup shall be ensured.
- Integration with control room shall be mandatory.

4.10 Landscape Works

- Native and drought-resistant plant species shall be used.
- Irrigation system shall preferably be drip-based.

4.11 Street Furniture & Signage

- Benches shall be durable and weather resistant.
- Signage shall be bilingual and reflective.

4.12 Safety & Accessibility

- Universal accessibility provisions including ramps shall be provided.
- Handrails shall be installed at ghats and ramps.
- Fire safety provisions shall be ensured as per NBC.

4.13 Quality Control

- All materials shall be subject to prior approval.
- Third-party testing may be conducted as required.
- Stage-wise inspections shall be carried out.

5. Deliverables

- Completion of works as per approved drawings and specifications.
- Submission of as-built drawings.
- Submission of O&M manuals.
- Testing and commissioning reports.

6. Defect Liability

- Defect Liability Period (DLP) shall be **36 months** from date of completion.
- Performance retention shall be applicable as per Conditions of Contract.

7. Applicable IS Codes & Standards

All materials, workmanship, testing and execution shall conform to the latest applicable Indian Standards (IS Codes), National Building Code (NBC), MP PWD Specifications, and other relevant codes. In case of discrepancy, the decision of the Engineer-in-Charge shall be final and binding.

7.1 General

All works shall conform to the latest editions (including amendments) of:

- Relevant **Indian Standards (IS Codes)**
- **National Building Code (NBC), 2016**
- **MP PWD Specifications & SOR 2024**
- Applicable MoRTH / CPWD specifications (where relevant)

In case of conflict, the **more stringent specification shall prevail**, as directed by the Engineer-in-Charge.

7.2 Civil & Structural Works

Concrete & RCC Works

- IS 456 – Plain and Reinforced Concrete – Code of Practice
- IS 10262 – Concrete Mix Proportioning
- IS 383 – Coarse and Fine Aggregates
- IS 516 – Methods of Tests for Strength of Concrete
- IS 1199 – Sampling and Analysis of Concrete
- IS 9103 – Concrete Admixtures

Reinforcement Steel

- IS 1786 – High Strength Deformed Steel Bars
- IS 432 – Mild Steel Bars
- IS 2502 – Bending and Fixing of Bars

Structural Design

- IS 800 – General Construction in Steel
- IS 875 (Part 1 to 5) – Design Loads (Dead, Live, Wind, etc.)
- IS 1893 – Earthquake Resistant Design
- IS 13920 – Ductile Detailing of Reinforced Concrete

Masonry Works

- IS 1905 – Structural Use of Unreinforced Masonry
- IS 2212 – Brickwork Code of Practice
- IS 1077 – Common Burnt Clay Bricks
- IS 2185 – Concrete Masonry Units

Stone, Flooring & Finishes

- IS 1121 – Methods of Test for Natural Building Stones
- IS 3316 – Structural Design of Natural Stone Masonry
- IS 1237 – Cement Concrete Flooring Tiles
- IS 1443 – Code of Practice for Laying Stone Flooring
- IS 2571 – In-situ Cement Concrete Flooring

7.3 Heritage & Conservation Works (Relevant References)

(To be used in conjunction with conservation best practices)

- IS 1666 – Lime Pozzolana Mixtures
- IS 712 – Building Limes
- IS 2116 – Sand for Masonry Mortars
- INTACH Guidelines for Heritage Conservation (latest)

7.4 Roads, Pavements & External Development

- IRC:37 – Design of Flexible Pavements
- IRC:58 – Design of Rigid Pavements
- IS 2386 – Testing of Aggregates
- MoRTH Specifications for Road & Bridge Works

7.5 Water Supply & Plumbing

- IS 1172 – Water Supply for Buildings
- IS 2065 – Water Supply in Buildings
- IS 10500 – Drinking Water Quality
- IS 4985 – UPVC Pipes
- IS 1729 – CI Pipes

7.6 Sewerage & Drainage

- IS 1742 – Building Drainage
- IS 4111 – Sanitary Fittings
- IS 5329 – Code for Sanitary Pipework
- CPHEEO Manual on Sewerage & Drainage

7.7 Electrical Works & Illumination

- IS 732 – Electrical Wiring Installations
- IS 3043 – Earthing
- IS 5216 – Safety Procedures for Electrical Work
- IS 3646 – Interior Illumination
- IS 10322 – Luminaires

7.8 Fire & Safety

- NBC 2016 (Part 4 – Fire & Life Safety)
- IS 2190 – Fire Detection & Alarm System
- IS 3844 – Fire Fighting Equipment
- IS 15105 – Sprinkler Systems

7.9 Accessibility & Universal Design

- NBC 2016 (Part 3 – Accessibility)

- Harmonised Guidelines for Universal Accessibility (MoHUA)

7.10 Landscape & Horticulture

- IS 14458 – Retaining Wall Design
- CPWD Specifications for Horticulture & Landscaping
- IRC Guidelines for Avenue Plantation

7.11 Structural Steel & Fabrication (Canopies, etc.)

- IS 800 – Steel Design
- IS 2062 – Structural Steel
- IS 875 (Wind Loads)
- IS 814 – Welding Electrodes

7.12 Testing & Quality Control

- IS 1200 – Method of Measurement of Building Works
- IS 4926 – Ready Mixed Concrete
- IS 4031 – Cement Testing
- IS 2720 – Soil Testing

7.13 Environmental & Sustainability

- CPCB/MPSPCB Norms
- MoEF Guidelines
- Rainwater Harvesting – CGWB Guidelines

1.1. Miscellaneous

- IS 3696 – Safety in Construction
- IS 4082 – Stacking and Storage of Materials
- IS 3764 – Excavation Work Safety

8. Project Implementation Milestones & Timelines

Below is an indicative milestone-based implementation schedule for the *Development Works at Siddhwat Ghat, Ujjain*, considering:

- Total execution period: **12 months**
- Parallel construction activities
- Operational temple environment
- Target: Simhastha 2028 readiness

9. Other Instructions:

9.1 Stakeholder Consultation & Master Planning

Based on the Concept Plan issued by USCL, the contractor after conducting topographical surveys and geotechnical investigation, shall prepare a comprehensive Master Plan covering all components of the scope and services.

The Master Plan shall be presented to stakeholders including Heritage, Archaeological and Cultural Committee of USCL, Temple Management Committee, and other Stakeholders/other agencies as facilitated by Ujjain Smart City Limited (USCL) and/or PDMC.

The Contractor shall:

- Record all comments and observations
- Incorporate approved suggestions into the revised Master Plan
- Submit the final Master Plan for approval of USCL

No execution work shall commence without written approval of the Master Plan.

No additional cost or time claim shall be admissible on account of stakeholder consultations or incorporation of approved suggestions.

9.2 Structural Stability of Temple Structure

The Contractor shall be fully responsible for ensuring the structural stability, safety, and integrity of the Main Temple structure proposed to be restored/constructed using basalt stone elements. The Contractor shall prepare all necessary structural designs, calculations, erection methodologies, connection/anchoring details, and stability analyses required for such construction. The Contractor shall also conduct all required tests, structural validations, and independent technical checks through a reputed third-party agency approved by USCL, to verify the adequacy and safety of the proposed system. All costs associated with structural design, analysis, testing, third-party review, and compliance shall be borne by the Contractor and deemed to be included in the quoted tender premium, and no additional payment shall be admissible on this account.

No additional payment or extension of time shall be admissible on account of such studies, vetting, or design revisions.

9.3 Manufacturer's Test Reports, QAPs & Compliance Documentation

The Contractor shall submit, for review and approval of USCL/PDMC, all relevant manufacturer's test reports, factory test certificates, compliance certificates, and Quality Assurance Plans (QAPs) for materials, equipment, systems, and other products proposed to be used in the Project. The QAPs shall clearly define quality control procedures, inspection stages, testing methods, acceptance criteria, and hold points for USCL/PDMC review. No procurement, or installation activity shall commence without written approval of the applicable QAPs and test reports. Approval of such documents shall not absolve the Contractor of responsibility for performance, quality, safety, or compliance with the Contract, and no additional cost or time claim shall be entertained on this account.

9.4 Third-Party Inspection (TPI) of Materials & Equipment

The Contractor shall, at his own cost and arrangement, provide for third-party inspection (TPI) of all major materials, equipment, systems, and components proposed to be supplied and installed under the Project. Such inspections shall be carried out through an independent inspection agency of repute, approved by Ujjain Smart City Limited (USCL). The scope of TPI shall include review of material specifications, workmanship, factory acceptance tests, performance parameters, and compliance with approved standards and drawings. Dispatch, installation, or deployment of any such material or equipment shall be permitted only after submission and acceptance of the TPI reports and certificates by USCL/PDMC. No additional payment or time claim shall be admissible on account of third-party inspection.

Pre-Dispatch Inspection of Major Equipment

The Contractor shall arrange pre-dispatch inspection of major equipment and specialized lighting fixtures.

Inspection shall be conducted by an independent agency approved by USCL, in presence of USCL / PDMC representatives.

Dispatch shall be permitted only after acceptance of inspection reports.

9.5 Miniature Models & Prototypes for Sculptural / Artistic Elements

The Contractor shall prepare and submit scale models / mock-ups / prototypes (physical and/or digital) of all major components, artistic elements, and signature components for approval of USCL and its designated Heritage, Archaeological & Cultural Committee.

For major sculptural or artistic elements, the following approvals shall be mandatory:

1. Concept-stage model – form, proportions, theme
2. Final detailed model – material, surface finish, texture, lighting integration

The executed full-scale work shall strictly conform to the final approved model. No fabrication or installation shall commence without such approval.

All costs for preparation, revisions, and compliance shall be deemed included in the Contract Price/Tender Premium.

9.6 Handling, Conservation and Re-installation of Existing Sculptures

The Contractor shall, at his own cost and arrangement, be responsible for the safe identification, documentation, lifting, handling, packing, internal transportation, conservation treatment, and re-installation of all existing sculptures, fragments, and heritage objects presently lying in temple premises or as identified by USCL. All handling and movement shall be carried out using suitable, non-invasive, and conservation-safe methods, including appropriate lifting equipment, protective supports, cushioning, and trained personnel, strictly in accordance with approved conservation protocols. After completion of conservation treatment and upon approval of the PDMC/USCL, the Contractor shall install and position such components at their designated display locations on approved pedestals, mounts, or display systems, ensuring proper alignment, stability and safety. Any damage, loss, or deterioration arising due to improper handling, transportation, conservation, or installation shall be the sole responsibility of the Contractor, and no additional cost or time claim shall be admissible on this account.

9.7 Testing, Commissioning & Handover

Testing & Commissioning

The Contractor shall conduct testing and commissioning of HVAC, MEP, internal/external lighting, façade lighting, etc

Training & Documentation

The Contractor shall provide:

- Training to O&M staff
- O&M manuals, as-built drawings, asset registers
- Periodic cleaning maintenance protocols

Soft Launch & Handover

- Trial operation / soft launch for minimum 30 days

- Rectification of issues observed during trial
- Final handover after compliance certification by PDMC / USCL

9.8 General No-Claim & Responsibility Clause

Approval of designs, models, content, or methodologies by USCL / PDMC shall not relieve the Contractor of responsibility for safety, performance, accuracy, or compliance with standards.

No claim for extra cost or time shall be entertained on account of approvals, revisions, stakeholder inputs, or coordination requirements.

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 coulms, 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 arrage 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.)

Not Applicable

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

1. Number of partners in a Joint Venture shall not exceed 3 (three). The partners shall comply with the following requirements:
 - 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 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 the 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] above, as well as in the bid and in the Agreement [in case of successful bid.
 - e. Bidder shall submit the joint venture agreement indicating precisely the role and responsibilities of all the 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. a copy of the Joint Venture Agreement entered into by the partners shall be submitted with the bid.
 - g. The joint venture agreement shall be registered at the time of agreement, so as to be legally valid and binding on all partners.
2. All the partners should meet out the minimum qualifying criteria required for the bid and 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 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. An individual Bidder cannot at the same time be member of a Joint Venture applying for this Bid. Further, a member of a particular Bidder Joint Venture cannot be member of any other Bidder Joint Venture applying for this bid
6. A copy of the Joint Venture agreement entered into by the partners made on Rs 500/- Non-judicial stamp duly notarized shall be submitted with the bid. However at the time of

agreement bidder shall get the joint venture agreement registered, so as to be legally valid and binding on all partners.

7. Furnish details of participation proposed in the joint venture as below:

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)			

8. The partners of J.V. should satisfy the qualification criteria as below,

- a. The Lead Partner must have the share of 51% in the J.V.
- b. The other partner(s) must have a share of minimum 25% in the J.V.
- c. The lead partner and the other partners must also meet 51% and 26% of the all qualification criteria respectively except for the requirement of work experience described in Annexure 'C'. However both the partners must satisfy the full 100% qualification criteria jointly. For this purpose the qualification of individual partners shall be added (for Average annual turnover, Net worth).

9. For the meeting the minimum qualification criteria of experience of similar nature work,

- (i) Out of 3 (three) similar works of value more than 20% of PAC, at least 2 (two) works must be done by lead partner and 1 (one) work to be done by other partner.

Or

- (ii) Out of 2 (two) similar works of value more than 30% of PAC, at least 1(one) work must be done by lead partner and 1 (one) work to be done by other partner.

Or

- (iii) In case of 1 (one) similar work of value more than 50% of PAC the lead partner must satisfy the criteria. However, the other partner must satisfy the criteria of least one work of 20% of PAC.

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— 1956/2013)/ 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)

The bidder should have:

A. Financial & Physical

i. Experience of having successfully executed as prime contractor:

- 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)

For the meeting the minimum qualification criteria of experience of similar nature work,

Out of 3 similar works of value more than 20% of PAC, at least 2 works must be done by lead partner and one work to be done by other partner.

Or

Out of 2 similar works of value more than 30% of PAC, at least 1(one) work must be done by lead partner and 1 (one) work to be done by other partner.

Or

In case of one similar work of value more than 50% of PAC the lead partner must satisfy the criteria. However the other partner must satisfy the criteria of least one work of 20% of PAC.

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

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,

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

ANNUAL TURN OVER

Requirement:

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. 2020-2021	
2. 2021-2022	
3. 2022-2023	
4. 2023-2024	
5. 2024-2025	

Note:

- i Annual turnover from construction should be certified by the Chartered Accountant.
- ii. 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

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	2024-25	2023-24	2022-23	2021-22	2020-21
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 opened

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

List of Technical Personnel for the Key Positions³(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.

The qualification and experience requirements are as under.

S.No.	Details	Qualification	Experience
1.	Project Manager (Site In-Charge) (1 No)	B.E./B.Tech Civil / Construction Management	10 years
2.	Structural Engineer (1 No)	M.Tech / B.E. Structural Engineering	7 years
3.	Stone Architecture / Stone Artwork Expert (1 No)	Degree/Diploma in Architecture / Sculpture / Traditional Stone Craft	7 years
4.	Architect (1 No)	B.Arch / B.E. Civil	5 years
5.	MEP Engineer (1 No)	B.E./B.Tech Electrical/Mechanical	5 years
6.	QA/QC Engineer (1 No)	B.E./B.Tech Civil	3 years
7.	EHS Officer (1 No)	Diploma / Degree in Safety Engineering	3 years
8.	Landscape Architect / Horticulture Expert (1 No)	Degree in Landscape Architecture / Horticulture	3 years
9.	Electrical Site Engineer (1 Nos)	B.E./B.Tech Electrical	3 years
10.	Civil Site Engineers (2 Nos)	B.E./Diploma Civil	3 years

NOTE: At the time of signing of the agreement the contractor must submit the biodata of experts for above positions for the approval from USCL and shall be mobilized after the approval only.

Development Works at Siddhwat Ghat, Ujjain.

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

S. No.	Details	Penalty to be computed on Per Month basis
1	Project Manager	Rs. 100,000/- p.m.
2	Other Experts	Rs. 75,000/- p.m.
3	Field Staff	Rs. 50,000/- 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-5)
(See clause 14 of Section 2-ITB)

LIST OF EQUIPMENTS / MACHINES FOR CONSTRUCTION WORK

			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			

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 **lumpsum item rate (in figures)** _____ **(in words)** _____ 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 amount _____ for 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]
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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:~~
- 1.3. **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 performed 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 from 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 having 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 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 (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 fails 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 Delectability 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.

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

<i>Clause reference</i>	<i>Particulars</i>	<i>Data</i>
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	Twelve (12) months (including Rainy season)
3	Language & Law of Contract	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	Up to 25% by approval of employer
6	Technical Personnel to be provided the contractor—requirement, & 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) As defined Annexure-I
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. (a) Every Three Months Or (b) At end of every Milestone, Whichever is less
	Amount to be withheld for hot submitting execution 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	YES, Refer Scope of Work

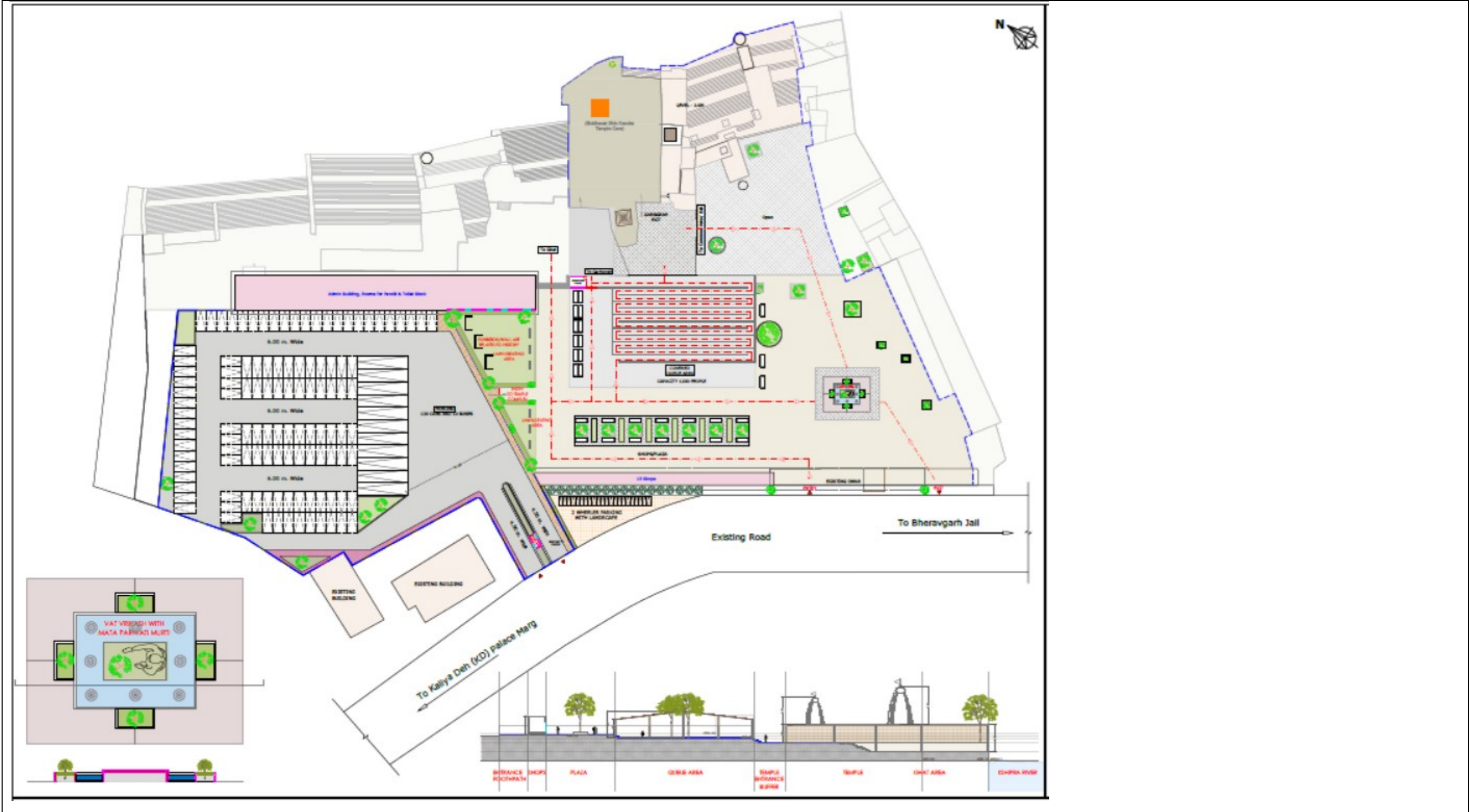
	contract	
	If Yes, details of Milestones	As per Annexure – O/ Scope of Work
	Liquidated damage	As per Annexure – P
17	List of equipment for lab	As per Annexure - Q
	Time to establish lab	30 days from the signing of Agreement.
	Penalty for not establishing field Laboratory	Not applicable
18	Defect Liability Period	<p>36 months (3 years) after physical completion of 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:</p> <p>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</p>
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 milestone
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
29	Performance guarantee (Security) shall be valid up to	Till issue of physical Completion Certificate as per Clause 35.1 plus Defect Liability Period plus 3 months.
	Additional Performance guarantee (Security)	The Additional 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.
	30.3 Security deposit refund	50% of the security deposit (accumulated Retention Money) shall be released upon the successful completion of the project and the issuance of the Completion

		Certificate by USCL. The remaining 50% shall be released upon the successful completion of the Defect Liability Period and the issuance of the Final Acceptance Certificate.
31	Price Adjustment formula and procedure to calculate	Not Applicable.
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
	35.2 Final Payment	The final payment, including the release of the remaining Retention Money, shall be made only after the satisfactory conclusion of the DLP and the issuance of the Final Acceptance Certificate, confirming that the facility is functioning as per the contract specifications.
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

Drawings

The Concept Drawings are attached with the document.

Master Plan



Architectural Plan

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

Details of Milestones

Milestones 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:

- i. **Milestone 1:** 1/8th of the whole work before 1/4th of the whole time has elapsed
- ii. **Milestone 2:** 3/8th of the whole work before half of the whole time has elapsed
- iii. **Milestone 3:** 3/4th of the whole work before 3/4th of the whole time has elapsed
- iv. **Milestone 4:** Complete work within Stipulated time

***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	Min. Nos. Required.
For Building Construction Projects		
1.	IS sieves with lid/pan: Size in mm: 100, 90, 80, 63, 53, 45, 37.5, 26.5, 19,13.2,11.2,9.5,4.75,2.8,5.6,3.35,2.36, 600 , 500, 425,355, 250, 212, 180, 150, 90, 75, 63,53,45,and 38 micron,	1 set
2.	Cube moulds 70 mm for mortar	6
3.	Cube moulds for CC 150 mm	6
4.	Compression testing machine 200t	1
5.	Electronic/digital balance 1 kg with least count of 0.01g	1
6.	Electronic / digital balance 5 kg	1
7.	Pan balance with weight box 5 kg.	1
8.	Enameled tray	6
9.	Oven (300oC) thermostatically controlled, sensitivity 1oC	1
10.	Slump cone	1
11.	First Aid Box	1
12.	Vicat Apparatus	1
13.	Room cooling equipment for temperature control	1 or 2
14.	Atterberg Limit Apparatus	1
For Road Construction Projects:		
1.	Additional -IS sieves with lid/pan: Size in mm: 125, 106, 75, 50, 40, 31.5, 25, 22.4, 20, 16, 12.5, 10, 8.6, 8, 6.7, 6.3, 4.75,2.8,5.6, 125, and 38 micron,	1set
2.	Balance 20 kg with 1 gm accuracy	1
3.	Proving ring 10kg, 50kg,100kg capacity	1 each
4.	Dial Gauge 25 mm, 50 mm travel (sensitivity 0.01 mm /division)	6 each
5.	Water bath (Electrically operated and thermostatically controlled) , water still (capacity 4 lit/hour)	1 each
6.	Thermometers: -Metallic type (Mercury in steel) with 300mm stem for near and distant readings. Glass type (mercury in glass) range of 110oC to 250oC	4 4
7.	Glassware: Flasks, beakers, Graduated cylinders, spatulas, wire gauges, scoops, steel scales, measuring tapes (30m, 15m, 5m), filter paper, glass marking pencils, heat resistant hand gloves, vernier calipers etc. Table lamp	
8.	Camber boards 3 m long	3
9.	Straight Edge 3 m long	1
10.	Thickness gauge	1
11.	Precision Level and staff, total station/theodolite	1 set each
12.	Rapid moisture meter.	1 set
13.	Liquid limit device	1
14.	Post hole auger (100 mm dia)	1
15.	Sampling Pipette 10 ml.	1
16.	B.S. Compaction apparatus	1
17.	Sand replacement equipment.	1
18.	Lab CBR equipment	1
19.	Core 100 mm cutter.	1
20.	Flakiness and Elongation gauges	1

S.No.	Equipment	Min. Nos. Required.
21.	Aggregate Impact value apparatus.	1
22.	Digging tools pickaxe, pan, axe, shovels,	LS
30.	Sieve shaker	1
31.	Steel tapes 50 m	1
32.	Steel tapes 5m	2
34.	Computer, printer , modem and internet	1 set.
35.	Others if required:	

- 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 _e	
2.	Steel - P _s	
3.	Bitumen - P _b	
4.	POL - P _f	

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

Adjustment for cement component

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

$$V_e = 0.85 \times P_e / 100 \times R \times (C_1 - C_0) / C_0$$

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

C₀ = 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)

C₁ = 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_e = 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.

S₀ = 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)

S₁ = 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:

$$V_b = 0.85 \times P_b / 100 \times R \times (B_1 - B_0) / B_0$$

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

B_0 = The official retail price of bitumen of IOC at the nearest center on the date of opening of Bids.

B_1 = The official retail price of bitumen of IOC at the 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:

$$V_f = 0.85 \times P_f / 100 \times (F_1 - F_0) / F_0$$

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_0 = 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_1 = 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 - 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 being those materials 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 rates fixed for the finished work (i.e. net of the cost of materials and
labour and other charges)

AND WHEREAS the contractor 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 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 Contract 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 the 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 this security, or otherwise by reason of the default of the Contractor and the Contractor hereby covenants and agrees with the Employer to reply and pay the same respectively to him accordingly.

(8) That the Contractor hereby charges all the said materials with the payment to the Employer of the said sum of Rupees _____ and any further sum of sums advanced as aforesaid and all costs, charges, damages and expenses payable under these presents PROVIDED ALWAYS and it is hereby agreed and demanded that notwithstanding anything in the said agreement and without prejudice to the power contained therein if and whenever the covenant for payment and repayment here in before contained shall become enforceable and the money owing shall not be paid in accordance therewith the Employer may at any time thereafter adopt all or any of the following courses as he may deem fit.

(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. 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 the same shall be referred to the Employer whose decision shall be final and the provision of the Indian Arbitration Act for the time being in force shall apply to any such reference.

DELETED

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.

SECTION 4

CONDITIONS OF CONTRACT [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 MPPKVV 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.
-Not Applicable
26. 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).

27. 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.

28. 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

29. 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.

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

31. If any heritage structure / Article etc. is encountered / found at site during Excavation, then the work must be 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 ContractData, Point No 13.1)

PROCESS PARAMETERS -			
Sr. No.	MIS Report	Frequency of Submission	Submission Date
1	Quarterly Plan	Quarterly	7 th of every quarter ad as and when required.
2	Construction Schedule for next Quarter	Quarterly	7 th of every quarter
3	Plan vs Achievement Report - Turnover (WD Status)	Weekly	
4	Daily Progress Report/Daily Labour Report / Including Gender segregated Labour report.	Daily	-
5	Material Identification/Tracker	Process	-
6	Monthly Dia-wise Steel & Cement requirement	Monthly	1 st of every month
7	Drawing Register	Process	-
8	Fortnightly Labour Report	Fortnightly	7 th / 22 nd
9	Sub-Contractor employed Details	Process	-
10	Material Stock Report	Monthly	7 th of every month
11	Hinderance Register Copy	Monthly	7 th of every month

SECTION 5

Bill of Quantities

PREAMBLE TO BILL OF QUANTITIES (BOQ)

Name of Work: Development Works at Siddhwat Ghat, Ujjain

1. The Bill of Quantities (BOQ) forms part of the Tender Documents for the work of “*Development Works at Siddhwat Ghat, Ujjain*”. The quantities indicated in the BOQ are based on the approved drawings, master plan, and detailed estimates prepared for the project.
2. The **Probable Amount of Contract (PAC)** has been derived from detailed estimates prepared primarily on the basis of the **Schedule of Rates of Madhya Pradesh Public Works Department (MP PWD SOR–2024)** along with amendments issued from time to time. Certain specialized or non-scheduled items not covered under the SOR have been included in the estimates based on prevailing market rates, standard analysis of rates, or approved quotations.
3. The tender is invited on the basis of **percentage tender premium** over the PAC. The bidder shall quote a **single percentage premium (above/below/at par)** on the PAC in the prescribed format. The quoted premium shall be deemed to apply uniformly to all items of work included in the BOQ, including SOR and non-SOR items, unless otherwise specified in the tender documents.
4. This contract shall be an **Item Rate / Admeasurement Contract**, and the quantities mentioned in the BOQ are **indicative only**. The actual quantities executed at site may vary depending upon site conditions, detailed drawings, and instructions issued by the Engineer-in-Charge. Payment shall be made based on the **actual quantities of work executed and measured** at site in accordance with the relevant specifications and contract conditions.
5. The contractor shall submit **Running Account (RA) Bills on a monthly basis**, based on the measured quantities of work executed during the billing period. Payments shall be processed after verification of measurements and certification by the Engineer-in-Charge in accordance with the provisions of the contract.
6. The bidder shall carefully examine the drawings, specifications, site conditions, and BOQ before quoting the tender premium. The quoted premium shall be deemed to include **all costs necessary for complete execution of the works**, including but not limited to:
 - All leads, lifts, royalties, taxes (excluding GST), duties, labour, materials, equipment, tools, plants, wastage, and incidentals required to complete the work

- Establishment and maintenance of site office and site infrastructure
- Mobilization and demobilization of manpower, machinery, and equipment
- Temporary works, barricading, safety measures, and traffic management
- Surveys, setting out, and site investigations required during execution
- Water, electricity, and consumables required for construction
- Quality control measures, testing of materials and works at approved laboratories, third party inspections
- Preparation of mock-ups, samples, and trial panels for approval
- Cleaning of site and disposal of debris
- Documentation, drawings, and coordination with consultants
- All incidental and miscellaneous expenses required for proper completion of the works.

No separate payment shall be made for the above activities, and the cost of such incidental, testing, mock-up, survey, investigation, and establishment-related works shall **be deemed to be included in the quoted tender premium.**

7. The contractor shall execute the works in accordance with the approved drawings, technical specifications, applicable codes and standards, and instructions issued by the Engineer-in-Charge from time to time. All works shall be completed in a workmanlike manner to the satisfaction of the Engineer-in-Charge.
8. Basalt Stone Construction/Restoration: The Main Temple structure is proposed to be constructed/restored using Basalt stone elements in accordance with the approved architectural concept and drawings. The Contractor shall be responsible for sourcing suitable basalt stone from approved quarries, cutting, dressing, carving, transportation, handling, and precise erection of large monolithic stone members required for the temple structure and associated architectural components. Preparation of detailed shop drawings, installation methodology, mock-ups, samples, and all related activities necessary for proper execution of monolithic basalt construction shall be included in the Contractor's scope. All costs associated with these works shall be deemed to be included in the quoted tender premium, and no separate payment shall be admissible.
9. The site is located at Siddhwat Ghat on the banks of River Kshipra, and the Contractor shall take into account the operational requirements of the temple premises and the need for safe movement of pilgrims during execution. The quoted premium shall therefore include provisions for appropriate construction planning, phasing, safety arrangements, and protection of existing structures and utilities:
 - Restricted working areas and phased execution
 - Continuous movement of pilgrims and visitors

- Proximity to temple and religious activities
 - Seasonal variation in river water levels
 - Environmental and heritage sensitivities
 - The Contractor shall ensure minimal disruption to public movement and religious activities during execution.
 - Necessary precautions shall be taken for working in riverfront and ghat areas, including safety, erosion control, and protection of existing structures.
10. The BOQ shall be read in conjunction with the Conditions of Contract, Technical Specifications, Drawings, and other Tender Documents, all of which shall form part of the Contract Agreement.

ABSTRACT OF COST

Name of Work: Development Works at Siddhwat Ghat, Ujjain

SNo	Description	Amount (In Rupees)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
Grand Total (excluding GST)		
Total Amount in Words: Rupees		

DETAILED BILL OF QUANTITIES

Attached Separately.

SECTION 6

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 _____

A B S T R A C T

S.No.	NAME OF ITEM	AMOUNT
1	DISMANTLING & DEMOLITION WORK	1348890
2	PARKING	7619877
3	BOUNDARY WALL	3223815
4	OPEN AREA	3679885
5	LANDSCAPING	1118638
6	MANDIR RENOVATION	8115556
7	QUEING BLOCK	16266738
8	MAIN GATE & SHOPS FACADE REVAMPING	12438770
9	PANDIT BUILDING	13348212
10	ADMIN BLOCK	10079595
11	SHOPS	11567101
12	PUBLIC TOILET	4414420
13	RAMP	13833804
14	ESTIMATE FOR EXTERNAL SANITARY, WATER SUPPLY AND GARBAGE COLLECTOR	1667434
15	ELECTRIFICATION WORKS	14873907
	TOTAL	123596642
	SAY	12.36 CR

NAME OF WORK : ESTIMATE FOR DISMANTLING & DEMOLITION WORKS					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part 1					
1	Demolishing lime concrete manually/by mechanical means and disposal of material within 50 metres lead as per direction of Engineer-in-Charge. SOR 15.1				
		400.00	CUM	202.00	80800
2	Demolishing cement concrete manually/by mechanical means including disposal of material within 50 metres lead as per direction of Engineer-in Charge. Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix).SOR 15.2.1				
		600.00	CUM	578.00	346800
3	Dismantling tile/ Kota stone/ Marble / Granite work in floors/walls and roofs laid in cement mortar including stacking material within 50 metres lead. For thickness of tiles above 25 mm and upto 40 mm. SOR 15.11.2				
		400.00	sqm	26.00	10400
4	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- Charge. SOR 15.3				
		550.00	CUM	844.00	464200
5	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-Charge. In cement mortar. SOR 15.6.3				
		700.00	CUM	487.00	340900
6	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved. SOR 15.64				
		400.00	Cum	121.00	48400
7	Surface dressing of the ground including removing vegetation and in - equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. in all kinds of soil. SOR 2.1				

		2.00	100 SQM	803.00	1606
8	Transportation by mechanical transport including unloading and stacking. Lime, moorum, building rubbish SOR 1.1				
		400.00	SQM	139.46	55784
	Total				1348890

NAME OF WORK : ESTIMATE FOR CONSTRUCTION OF ADMIN

BLOCK

NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
	Part A:- UPTO PLINTH LEVEL				
	Part 1				
1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil.				
	SOR IT NO 2.1.1	150.00			
		1.50	100 SQM	803.00	1205
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil				
	SOR IT NO 2.7.1				
	Total	136.08	CUM	147.00	20004
3	Extra for every additional lift of 1.5 m or part thereof in excavation. (No extra lift is payable if work is done by mechanical means) Soil All kinds of soil				
	SOR IT NO 2.25.2				
	Total	68.04	CUM	30.00	2041
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. M-15 - Grade concrete				
	SOR IT NO 4.1.2.1				
	Total	3.58	CUM	4403.00	15780

5	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. Upto plinth All works upto plinth level.				
	SOR IT NO 5.27.1				
		51.24	CUM	6100.00	312552
6	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1				
		51.24	Cum	110.00	5636
7	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns.				
	SOR IT NO 4.3.1				
		10.08	SQM	169.00	1704
8	Centering and shuttering including strutting, propping etc. and removal of form for : (SOR I/5.9 P/66)				
	LOWER FLOOR				
	5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.				
		89.04	SQM	190.60	16971
9	Centering and shuttering including strutting, propping etc. and removal of form for Walls (any thickness) in cluding attached pilasters butter esses, plinth beams and string courses etc. Upto plinth level				
	SOR IT NO 5.9.2				
		190.54	SQM	219.00	41728

10	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding ire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:-1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers.				
	3. Couplers shall be conforming to IS code on “Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification”) Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR IT NO 5.16.6				
		6404.75	KG	80.00	512380
11	Filling available excavated earth (excluding hard rock/Ordinary 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.				
	sor it no 2.24				
	Total	111.02	CUM	95.00	10547
12	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm)				
	SOR IT NO 2.27.2				
		120.00	CUM	331.00	39720
13	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.				
	SOR IT NO 2.26				
	Total	24.00	CUM	672.00	16128
14	Preconstruction antitermite treatment to the building under construction by providing. sqm 136.00 Stage 1: Treating the bottom and the sides (upto 30 cm height of the excavated trench @ 5 liters per sqm of the surface area. Stage 2: After masonry/RCC work, the backfill in the immediate contact with the foundation structure treatment @ 7.5 liters per sqm. Of the vertical surface of the substructure for each side.				

	Stage 3: surface treatment by spreading emulsion over the plinth area before laying the base concrete under floors @ 5.0 litres/Sqm. Stage 4: Pumping the emulsion in plinth masonry on filling side at floor junction @ 7.5 litres/Sqm. Stage 5: Pumping the emulsion from outer side of the plinth below ground around the masonry @ 5.0 litres/Sqm as per I.S. 8944 Emulsion. (1 Chlorpyrifos: 19 water) with five years service guarantee (Measurements to be taken for plinth area). Note – Treatment should start when foundation trenches and pits are ready to take bed concrete or leveling course in foundations.				
	Laying of bed concrete should start when the chemical emulsion has been absorbed by the soil and the surface is reasonably dry. Treatment should not be carried out when it is raining or when soil is wet with rain or subsoil water. This also applies to fill up soil within the plinth area before laying the subgrade for flooring. to fill up soil within the plinth area before laying the subgrade for flooring.				
	SOR IT NO. 2.32				
		1500.00	CUM	136.00	204000
	TOTAL Part A				1200395
	Part B:- SUPER STRUCTURE				
S. N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
1	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design.. 5.27.2 Above plinth upto floor 5 All works above plinth level and upto floor five level				
	sor ino 5.27				
		45.93	CUM	6581.00	302252
2	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1				
		45.93	Cum	110.00	5052

3	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
		23.04	Sqm	521.20	12008
4	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns etc with ply Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO. 5.9.21				
		106.40	Sqm	521.20	55456
5	Centering and shuttering including strutting, propping etc. and removal of form for :Suspende5.9.20 d floors, roofs, landings,alconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works)				
	Sor item no. 5.9.20				
	Ground Floor				
	Slab	120.00	SQM	575.35	69042
6	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete. (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") 5.16.6 Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR it.no.5.16.6				
	(@140KG/CUM)	6429.92	KG	80.00	514394
7	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, in super structure above plinth level up to floor two level in :Having 75 kg / cm2average compressive strength 6.7.2.2 CM 1:6 Cement mortar 1:6 (1 cement : 6 sand)				

	Sor it no 6.7.2.2				
		33.20	CUM	5049.00	167624
8	12 mm cement plaster of mix : 13.1.2 1:6 (1 cement : 6 sand) (SOR I/13.1.2)				
		453.75	Sqm	160.00	72600
9	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:6 (1cement :6 sand) SOR IT NO 13.2.2				
		264.00	Sqm	168.00	44352
10	Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR IT NO 13.81				
		264.00	SQM	324.00	85536
11	Providing and fixing mesh in vertical and horizontal junction of RCC and brick/AAC work including scaffolding and all lead and lift etc. complete G.I. chicken mesh as per ISI specification and in the required width with 50mm long Bombay nails before plastering upto 10 meter height. SOR ITEM No 13.27.1				
	100 % OF PLASTER	717.75	Sqm	62.00	44501
12	Providing and fixing pressed steel door frames made of 1.6 mm thick steel profile conforming to IS: 4351 manufactured from commercial mild steel sheet including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.60 mm pressed mild steel welded or rigidly fixed together by mechanical means, including 2.5mm thick M.S. pressed butt hinges, with mortar guards, lock strike-plate and shock absorbers as specified filling the frame with Cement Concrete 1:3:6 at site before fixing (cost of concrete to be paid separately) fixing with adjustable lugs (200 mm long & 1.0 mm thick) and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-incharge: 10.12.5 Profile C of 1.25mm thick single rebate of size 100mmx50mm 10.12.5.1 Fixing with adjustable lugs with split end tail to each jamb. SOR 10.12.5.1				
		15.60	RM	385.00	6006

13	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 shutter.35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.				
	SOR IT ON 9.18.1				
		6.30	Sqm	2823.00	17785
14	Extra for lipping Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured)				
	sor it no 9.21				
	GF FLOOR	31.50	Sqm	401.00	12632
15	Providing and applying white cement based putty of average thickness 1 mm, of approved brand over the plastered wall surface to prepare the surface even and smooth i/c all cost of material, labour and scaffold etc in all position complete. Note : Putty shall be applied only on the internal walls, for application on the exterior walls prior permission of APD/Chief Engineer will be required.				
	(SOR I/13.41)				
		453.75	Sqm	74.00	33578
16	Finishing walls with textured exterior paint of required shade New work (Two or more coats applied @ 3.28 ltr/10 Sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 Sqm.				
	(SOR I/13.51)				
	QTY SAME AS 15 MM PLASTER	396.00	Sqm	132.00	52272
17	Exposed Concrete is composed of a mix natural and mix elements portland cement, hardest earthen material, special additives, natural grains and special polymers to create external beauty, aesthetic value and heritage effects of concrete. thickness 4mm to 6mm.(payment for providing grooves shall be made separately) First coat:- Base coat Apply of Cementous ready mix coarse dark grey color material for making of groove,				

	applied on smooth plaster surface with the thickness of 0.75mm to 1.5mm by trowel Second coat:-Apply of Cementous ready mix fine material, applied on plaster surface with the thickness of 2mm to 3mm by trowel. with or with out groves as per requirement and with 6mm groves (if grooves requires) with masking top of dark grey colour as per approved sample, for the complete satisfaction of architect/Engineer in charge. Third coat :- Protective clear top coat sealer (water based) applied by roller/sponge.				
	(SOR I/13.94)				
	QTY SAME AS 15 MM PLASTER	396.00	Sqm	1586.00	628056
18	Indian ethnic art painting such as tribal Art Pithora or warli/Gond or Bhil Painting on any wall surface (interior or exterior) by using textured/smooth exterior/interior paint of approved brand or Manufacturer including preparation of surface and cost of all material labour and scaffolding etc. complete as per direction of Engineer-in-charge.				
	(SOR I/13.93)				
	QTY SAME AS 15 MM PLASTER	396.00	Sqm	1988.00	787248
19	Wall painting by any mechanical or manual means with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre. of approved brand and manufacture, including applying additional coats wherever required to achieve even shade.				
	(SOR I/13.49)				
		680.63	Sqm	90.00	61257
20	Finishing walls by any mechanical or manual means with Acrylic Smooth exterior paint (Economy Exterior) of required shade including all scaffolding. New work (Two or more coat applied @1.67ltr/10sqm over and including one coat undiluted exterior waterproofing coating @ 2.39 litre/10 sqm with crack bridging ability of upto 0.5mm on horizontal surfaces with an elongation of 150% and water proofing of upto 3 bars on vertical surface				
	(SOR I/13.52)				
		396.00	Sqm	138.00	54648
21	Roto wall finishing Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base.				
	(SOR I/13.81)				
		150.00	Sam	324.00	48600

22	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture (SOR I/13.65)				
		13.23		77.00	1019
23	Providing and fixing factory made UPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of UPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), appropriate dimension of UPVC extruded glazing beads and UPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc.				
	Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)				
		13.23	Sqm	6371.00	84288
24	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 12 mm mild steel U beading.				
	SOR IT NO 9.124.2				
		13.23	Sqm	1370.00	18125

25	<p>Providing and fixing made UPVC white colour casement/ casement cum fixed glazed door comprising of UPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), UPVC extruded glazing beads of appropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear,</p>				
	<p>cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately).</p>				
	<p>Note: - For UPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. Casement door with 3D hinges made of (big series) frame 67 x 64 mm & sash 67 x 110 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm)</p>				
	SOR IT NO 9.169.1				
	Toilet Door	0.75	Sqm	7085.00	5314
26	<p>Filling the gap in between aluminium frame and adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width</p>				
	(SOR I/21.9)				
		26.46	mtr	53.00	1402

27	<p>Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in flooring laid on 20mm thick cement mortar 1:4(1cement :4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shade etc.. (c) Size 600X600 mm thickness 11-12mm (to be used heavy duty indoor areas of non residential buildings only such as schools, hostels, libraries hospitals, institutions, offices etc.)</p>				
	SOR Item No. 11.80.2.3				
		104.82	Sqm	1546.00	162053
28	<p>Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in skirting, riser laid on 12mm thick cement mortar 1:4 (1cement : 4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shades etc. (b) Size 600X600mm thickness 9-10mm</p>				
	SOR Item No. 11.81.2.2				
		10.48	Sqm	1329.00	13931
29	<p>Providing and fixing Ceramic glazed wall tiles 300x450 mm or more (having thickness 6 to 7 mm) of 1st quality conforming to IS: 15622 of approved make in all Colours& shades, except burgundy, bottle green, black laid on 12mm thick bed of Cement Mortar 1:3 (1 Cement: 3 sand)prepad same day when mortar is still green jointed with grey cement slurry @3.3 kg per Sqm including pointing the joints with white cement and matching pigments etc., complete.</p>				
	SOR 11.50				
		19.97	Sqm	776.00	15493
30	<p>Providing and laying Ceramic glazed floor tiles 300x300 mm or more (having thickness 6 to 7mm) of 1st quality conforming to IS : 15622 of approved make in any colours and shade laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 sand) including pointing the joints with white cement and matching pigment etc., complete.</p>				
	SOR 11.49				
		4.80	Sqm	670.00	3216

31	Steel work in built up M.S. tubular section (round, square or rectangular hollow tubes etc.) trusses/frame work etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	sor ino 10.14.2				
	15KG /Sqm	198.45	kg	123.00	24409
32	Extra for providing vision panel not exceeding 0.1 Sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :				
	(SOR I/9.22 P/136)				
	Total	22.68	Sqm	157.00	3561
33	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size)				
	sor ino 9.48				
	Total	10	Each	95.00	950
34	Providing and fixing bright finished brass 100 mm mortise latch and lock ISI marked with six levers and a pair of anodized (anodic coating not less than grade AC 10 as per IS : 1868) aluminum lever handles with necessary screws etc. complete (Best make of approved quality).				
	sor ino 9.84				
	MAIN DOOR	10	Each	820.00	8200
35	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish wherever required etc. complete at all levels. samples approved by Engineer-in-charge. Raj Nagar plain/ White Marble/ Udaipur Green Marble/ Zebra black				
	SOR Item No.11.22.1				
		10.50	Sqm	1797.00	18869

36	Providing edge moulding to 18mm thick marble stone counters, Vanities, window sills etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work.				
	SOR ITEM No 11.40.2				
	TOTAL	78.00	RM	269.00	20982
37	Providing and fixing tiled false ceiling of approved materials of size 595x595 mm in true horizontal level suspended on inter locking metal grid of hot dipped galvanized steel sections (galvanized @ 120 gsm/Sqm, both side inclusive)consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38mm made from 0.30mm thick (minimum) sheet, spaced at 1200mm center to center and cross"T" of size 24x25mm made of 0.30mm thick (minimum) sheet, 1200mm long spaced between main "T" at 600mm center to center to form a grid of 1200x600 mm and secondary cross"T" of				
	length 600mm and size24x25mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600mm panel to form grids of 600x600mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, wherever, required, cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smokedetectors etc.Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 x mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200mm center to center along main T, bottom exposed width of 24 mm				
	of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications drawings and as directed by Engineer-in-charge. GI Metal Ceiling Lay in perforated microlook edge global white color tiles of size 595x595 mm and 0.5mm thick with 8mm drop; made of GI sheet having galvanizing of 100 gms/Sqm (both sides inclusive) and 20% perforation area with 1.8mm dia holes and having NRC (Noise Reduction Coefficient) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation, and backed with a black Glass fiber acoustical fleece.				
	SOR INO12.59.2				
		97.50	Sqm	1553.00	151418

38	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) : With float glass panes of 5.0 mm thickness (weight not less than 12.50 kg/sqm)				
	sor it no 21.3.3				
	Total	13.23	Sqm	948.00	12542
39	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :				
	9.74.1 125 mm 125x64x2.50 mm				
		20	EACH	76.00	1520
40	Grading roof for receiving water proofing treatment with 22.14.1 C.C. 1:2:4 Cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size)				
	sor ino 22.14.1				
		5.00	cum	6569.00	32845
41	22.14.2 CM 1:3 Cement mortar 1:3 (1 cement : 3 sand)				
		5.00	cum	9308.00	46540
42	Providing and Laying China Mosaic Flooring on Roof Top terrace slab with 6mm thick white or coloured galzed broken tiles in mini. 25 x 25mm size in sqaure or rectangular shape & laying in Cement mortar 1:3 after mixing water proofing material in proportion prescribed by the manufacturer with neat cement slurry at top including filling the gaps with grey cement to have smooth surface finish.				
	NON SOR				
		50.00	cum	594.00	29700
43	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double action hydraulic floor spring type fixing arrangementand making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-Charge (Door handle, lock and stopper etc.to be paid separately)				
	SOR 21.18				
		50.00	Sqm	4958.00	247900
44	Providing and fixing 12 mm thick toughened glass including all connectors and fixing accessories all complete for partitions, cubicals etc. As per direction of Engineer-in-Charge.				
	SOR 21.22				
		50.00	Sqm	2554.00	127700

45	<p>Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: a) Applying a slurry coat of neat cement using 2.75 kg/sqm. of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300mm height including cleaning the surface before treatment. b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115mm size with 50% of cement mortar 1:5 (1 cement : 5 sand)</p>				
	<p>admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-Charge over 20 mm thick layer of cement mortar of mix 1:5(1 cement :5 sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-Charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. c) After two days of proper curing applying a second coat of cement slurry using 2.75kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-Charge.</p>				
	<p>d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement: 4 sand) admixed with water proofing compound conforming to IS: 2645 and approved by Engineer-in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3mm deep. e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer in Charge: (with 5 years service guarantee With average thickness of 120mm and minimum thickness at khurra as 65 mm.</p>				
	SOR IT NO. 22.7				
		100.00	Sqm	885.00	88500
46	<p>Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick: Float glass panes 5 mm thick glass pane (weight not less than 12.5 kg/sqm)</p>				
	SOR 9.6.7.2				
		100.00	Sam	1046.00	104600

47	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle 12.5 mm thick tapered edge gypsum board Gypsum moisture resistant board.				
	SOR 12.58.2.3				
		100.00	Sqm	920.00	92000
48	Providing and fixing Stainless steel hanging type floor door stopper with necessary screws, etc. complete.				
	SOR 9.76				
		20.00	Nos	103.00	2060
49	Providing and fixing ISI marked stainless steel tower bolt black finish, (Barrel type) with necessary screws etc. complete : SOR 9.66				
	250mm 250*10mm SOR 9.66.1	10	Nos	148.00	1480
	200mm 200*10mm SOR 9.66.2	10	Nos	93.00	930
	150mm 150*10mm SOR 9.66.3	10	Nos	71.00	710
	100mm 100*10mm SOR 9.66.4	10	Nos	50.00	500
50	Providing and fixing ISI marked stainless steel handles with necessary screws etc. complete : 125 mm				
	SOR 9.69.1				
		25.00	Nos	60.00	1500
51	Providing and fixing bright finished brass 100 mm mortice latch with one dead bolt and a pair of lever handles with necessary screws etc. complete (best make of approved quality).				
	SOR 9.85				
		25.00	Nos	475.00	11875
52	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles with necessary screws etc. complete (best make of approved quality).				
	SOR 9.83				
		25.00	Nos	539.00	13475
53	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 12 mm mild steel U beading.				
	SOR 9.124.2				
		50.00	Sqm	1370.00	68500

54	Providing and fixing 50 micron thick Frosted heat /light control film to window/door glazing with complete accessories as per direction of Engineer-in-charge of approved brand and make. SOR 21.20				
		50.00	Sqm	518.00	25900
55	Add extra for providing and fixing froasted glass instead of float glass. With glass panes of 5 mm thickness (weight not less than 12.5 kg/sqm). SOR 21.4.2				
		50.00	Sqm	262.00	13100
56	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion. Polyester Powder coated aluminium (minimum thickness of polyester coating 50 micron) SOR 21.1.1.3				
		50.00	kg	426.00	21300

57	<p>Providing and fixing factory made UPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of UPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), appropriate dimension of UPVC extruded glazing beads and UPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes, wire mesh and silicon sealant shall be paid separately) Note: - For UPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made. Three track three panels sliding window with fly proof SS wire mesh (Two</p>				
		80.00	Sqm	6880.00	550400
58	<p>Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying a priming coat of approved steel primer. E.R.W tubes SOR 10.23.2</p>				
		50.00	kg	132.00	6600
59	<p>Providing and Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality. 1.5 mm thick. SOR 9.134.1</p>				
		50.00	Sqm	851.00	42550

60	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid decorative type flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice .husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant. WPC to be laminated with PVC foil of minimum 14 microns				
	thick of approved design pasted with hot melt adhesive on both faces of shutter and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-InCharge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately). 35 mm thick WPC (Wood Polymer Composite) solid decorative type flush door shutter.				
	SOR 9.171.2				
		80.00	Sqm	4417.00	353360
61	Providing and fixing stainless steel (Grade 304) railing made of Hollowtubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories and stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer- in-charge. (For payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).				
	SOR 10.25				
		50.00	Kg	582.00	29100
62	4 mm thick High Pressure Steam Cured non asbestos, pre-painted, self embossed, designer cement board Type B, Category 3 conforming to IS 14862:2000 of approved texture, design patterns.				
	SOR 12.62.5				
		50.00	Sqm	403.00	20150
63	Providing and fixing glass panes/ steel sheet/ fibre sheet with putty and glazing clips in steel doors, windows, clerestory windows all complete.				
	With 5.50 mm thick glass panes. SOR 10.27.2	873.00	Sqm	403.00	351819
	With 1mm thick Galvanised steel sheet i/c 10x10x1.6mm box beading. SOR 10.27.5	936.00	Sqm	403.00	377208

64	Structural steel work using M.S. flats, angles, channels I-section, H-section etc. riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.				
	SOR 10.2				
		100.00	Kg	103.00	10300
65	Granite work gang saw cut (polished and machine cut) of thickness 18mm for wall lining (veneer work), backing filled with a grout of average 12 mm thick in cement mortar 1:3 (1 cement : 3 sand) including pointing with white cement mortar 1:2 (1 white cement : 2 marble dust) with an admixture of pigment to match the marble shade: (To be secured to the backing by means of cramps, which shall be paid for separately). Area of slab over 0.50 sqm Fine grained granite dark				
	SOR 11.29.1.1				
		50.00	Sqm	2919.00	145950
66	Providing and laying Antiskid floor tiles of any sizes, 12 mm thickness with water absorption less than 0.08% and conforming to IS:15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement with matching pigments etc., complete.				
	SOR 11.53				
		50.00	Sqm	880.00	44000
67	Providing and laying integral cement based treatment for water proofing on horizontal surface at all depth below ground level for under ground structures as directed by Engineer-in-Charge consisting of: (i) 1st layer of 22mm to 25mm thick approved and specified rough stone slab over a 25mm thick base of cement mortar 1:3 (1 cement: 3 sand) mixed with water proofing compound conforming to IS: 2645 in the recommended proportion over the levelling course (levelling course to be paid separately). Joints sealed and grouted with cement slurry mixed with waterproofing compound. (ii) 2nd layer of 25mm thick cement mortar 1:3 (1 cement: 3 sand) mixed with water proofing compound in				
	recommended proportions. (iii) Finishing top with stone aggregate of 10mm to 12mm nominal size spreading @ 8 cum/sqm thoroughly embedded in the 2nd layer. (with 5 years service guarantee) Using rough Kota stone				
	SOR 22.1				
		50.00	Sqm	916.00	45800

68	Providing and laying integral cement based treatment for water proofing on the vertical surface by fixing specified stone slab 22 mm to 25mm thick with cement slurry mixed with water proofing compound conforming to IS:2645 in recommended proportions with a gap of 20mm (minimum) between stone slabs and the receiving surfaces and filling the gaps with neat cement slurry mixed with water proofing compound and finishing the exterior of stone slab with cement mortar 1:3 (1 cement: 3 sand) 20 mm thick with neat cement punning mixed with water proofing compound in recommended proportion complete at all levels and as directed by Engineer-in-charge (with 5 years service guarantee) Using rough Kota stone				
	SOR 22.2				
		50.00	Sqm	1013.00	50650
69	Brick work with well burnt chimney bricks in bulls pattern trench kiln manufactured by ghol process, crushing strength not less than 40kg /cm ² and water absorption not more than 15% in foundation and plinth i/c curing etc. complete.				
	SOR 6.1				
		50.00	cum	5626.00	281300
70	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, Having 50 kg / cm ² average compressive strength. Cement mortar 1:6 (1 cement : 6sand)				
	SOR 6.37.3.2				
		50.00	cum	4689.00	234450
71	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, in super structure above plinth level up to floor two level in : Having 50 kg / cm ² average compressive strength. Cement mortar 1:4 (1 cement : 4sand)				
	SOR 6.7.3.1				
		50.00	cum	5158.00	257900

72	<p>Providing and laying Autoclaved Aerated Concrete (AAC) blocks masonry, using AAC blocks (Size length 300, 400, 500, 600 mm Height 200, 250, 300 mm Width 100, 150, 200, 250 mm) conforming to IS 2185 PART 3, having compressive strength not less than 4 MPa (Grade II) in super structure, blocks jointed with approved block laying polymer modified adhesive mortar as per ASTM 1660-09, applied in uniform thickness of 2 to 3 mm in horizontal and verticals joints using special trowel, polymer modified mortar having minimum compressive strength and minimum splitting tensile strength of not less than 5MPa and 0.34 MPa respectively as per ASTM international standard including raking out joints.</p>				
	<p>The surface of masonry units (AAC Block) should be slightly moist prior to application of jointing mortar. Block should be gently pressed down using a rubber mallet to expel out entrapped air and the masonry shall be cured two days. 1st layer of masonry block shall be placed on perfectly leveled surface, which if required, shall be leveled with M-15 cement concrete at plinth or floor level.</p> <p>Masonry shall have 75mm thick RCC band with M-15 cement concrete having 2 bars horizontal of 8 mm dia with 8mm dia U- shaped single stirrup @300mm C/C. Such horizontal bands shall be placed at sill level and lintel level where there is a provision of windows in walls otherwise placed at vertical interval of 1.8 meter in vertical direction shall be spaced at 4.5</p>				
	<p>meter in horizontal direction. Mullion, Vertical bands, shall be placed along jams (vertical member of chowkhats) and extend upto lintel levels to arrest cracking at corner openings. RCC bands shall be measured with AAC block masonry. Rates include all materials including steel bars, wastages, RCC, Centering scaffolding and all labour etc. complete</p> <p>AAC Masonry in polymer modified mortar</p>				
	SOR 6.26.1				
		50.00	cum	5500.00	275000
73	<p>Providing and fixing up to floor two level precast cement concrete string or lacing courses, copings, bed plates, anchor blocks, plain window sills, shelves, louvers, steps, stair cases, etc., including hoisting and setting in position with cement mortar 1:3 (1 Cement : 3 coarse sand), cost of required Centering complete.</p> <p>1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) : 3 graded stone aggregate 20mm nominal size)</p>				
	SOR 4.20				
		50.00	cum	6583.00	329150

74	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 sand) and a top layer 6mm thick cement plaster 1:3 (1 cement : 3 sand) finished rough with sponge.				
	SOR 13.7				
		100.00	Sqm	236.00	23600
75	6 mm cement plaster of mix : 1:3 (1 cement : 3 sand)				
	SOR 13.8				
		100.00	Sqm	144.00	14400
76	Providing sand faced plaster upto 10meter high above ground level concrete or brick masonry surfaces in two coats, base coat of 13 mm thick in cement mortar 1:4 (1 cement: 4 sand),clearing the surface by combing it and finishing coat of 8 mm. thick in cement mortar 1:3 (1 cement: 3 sand) and taking out surface grains by mechanical arrangement or applying second coat by mechanical means including cost of all material, labour, and T and P including all lead, lift and scaffolding etc. complete.				
	SOR 13.13				
		50.00	Sqm	314.00	15700
77	Exterior walls of height more than 10 m from ground for every additional height of 3 m or part thereof				
	SOR 13.15.1				
		50.00	Sqm	34.00	1700
78	Interior walls of height more than 6 m from floor level for every additional height of 3 m or part thereof from ground for every additional height of 3 m or part thereof				
	SOR 13.15.2				
		50.00	Sqm	22.00	1100
79	Extra for plastering on circular work not exceeding 6 m in radius: in two coat				
	SOR 13.16.2				
		50.00	Sqm	18.00	900
80	Extra for plastering done on moulding cornices or architraves including neat finish to line and level: in two coat				
	SOR 13.17.2				
		50.00	Sqm	260.00	13000
81	Providing and fixing fibre mesh of 145 GSM weight in required width with cement mortar before plastering upto 10m height.				
	SOR 13.27.2				
		50.00	Sqm	45.00	2250

82	Providing and applying plaster of paris punning of 10 mm average thickness over plastered surface to prepare the surface even and smooth complete.				
	SOR 13.39.1				
		50.00	Sqm	130.00	6500
83	Finishing walls with Deluxe Mulf surface paint system for interiors and exterior using primer as per manufacturers specifications : Painting Steel work with Deluxe Multi Surface Paint to give an even shade.Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture. Painting Steel work with Deluxe Multi Surface Paint to give an even shade.Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture.				
	SOR 13.54.2				
		50.00	Sqm	71.00	3550
	Two or more coats applied on walls @ 1.25 ltr/10 sqm. over and including one coat of Special primer applied @ 0.75 ltr / 10 sqm.				
	SOR 13.54.3				
		50.00	Sqm	81.00	4050
84	Finishing walls with Deluxe Mulf surface paint system for interiors and exterior using primer as per manufacturers specifications : Painting Steel work with Deluxe Multi Surface Paint to give an even shade.Two or more coat applied @0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/ 10 sqm of approved brand or manufacture.				
	SOR 13.54.2				
		50.00	Sqm	71.00	3550
85	Providing and fixing M.S. grills of required pattern in frames of windows etc.with M.S. flats, square or round bars etc.including priming coat with approved steel primer all complete Fixed to openings /wooden frames with rawl plugs screws etc.				
	SOR 9.43.2				
		300.00	Kg	128.00	38400
86	Coarse grained granite light Black/light Red/ off White or equivalent with self design/ pattern/crystals of other colors of glitter				
	SOR 11.31.2				
		50.00	Sqm	3250.00	162500
87	Gray/Pink/Brown or equivalent with various patterns				
	SOR 11.31.3				
		50.00	Sqm	2793.00	139650

88	Providing and laying Granite stone flooring in required design and patterns in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry admixed with pigment of matching shade including rubbing, curing and polishing and as directed by the Engineer-in-Charge Granite stone slab Dark Black, Dark Red, White or equivalent, Flamed Finish Granite				
	SOR 11.33				
		50.00	Sqm	2542.00	127100
89	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying : a) After surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. b) Laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm.				
	c) Third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @				
	0.670 kg/sqm and sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30cm on parapet wall and tucked into groove in parapet all around.				
		50.00	Sqm	207.00	10350
90	Providing and fixing Scaffolding net of required width made of high density Polyethylene UV stabilized knitted on warp knitting machines having density 100gm/sqm and shading coefficient minimum 75% around the construction site/ for vertical extension as per requirement including fastening/tying with building/scaffoldingpipes or with any other fixtures etc. complete as per direction of Engineer-in-Charge. (One time payment shall be made for providing Scaffolding net from start of work till completion of work including shifting if any. The Scaffolding net shall be the property of the contractor on completion of the work)				
	SOR 5.42				
		50.00	Sqm	20.00	1000

91	Providing and fixing Glass Reinforced Concrete (G.R.C) Screens/ Jali customized as per design, dimensions as per drawings in approved shade in overall thickness of 40mm, or inner design membrane between 30-35mm and borders 50mm, casted with layering technique Power Spray methodology have weight approximately between 3.75 -4.5 Kg per Sq. Ft. The screens casting shall take place with layering methodology using- Direct Power Spray machines. The screens shall be casted from 53 grade White Portland Cement manufactured by Fine graded, sieved Quartz & Silica Sand, reinforced with Alkali Resistant				
	Glass Fiber manufactured between 4-5% by having Zirconia content at least 16%, Super Plasticizers and UV resistant Synthetic inorganic pigments should be used for pigmentation				
	SOR 5.43				
		50.00	Sqm	4721.00	236050
	Total Part B				8791485
	INTERNAL WATER SUPPLY				
1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : 17.2.1 W.C. pan with ISI marked white solid plastic seat and lid				
	sor ino 17.2.1	1	each	3036.00	3036
2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps,32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : White Vitreous China Flat back wash basin size 450x300 mm with single 15 mm C.P. brass pillar tap.				
	S.O.R.P-292/lt.No.17.11.4	1.00	each	1664.00	1664
3	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
	sor i.no. 18.49 pg.no-330	1000.00	ltr	7.00	7000
4	Providing and fixing on wall face unplasticised Rigid PVC Rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.for soil and waste pipes Single socketed pipes for working pressure of 4 kg./cm ²				

	17.58.175 mm diameter (minimum wall thickness 3.2mm)	50.00	rm	136.00	6800
	17.58.2 110 mm diameter (minimum wall thickness 3.2mm)	50.00	rm	238.00	11900
5	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC Rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS :5382 leaving 10 mm gap for thermal expansion				
	S.O.R.P-301/lt.No.17.59.1 Coupler				
	75MM	5.00	each	117.00	585
	110mm	5.00	each	154.00	770
	S.O.R.P-301/lt.No.17.59.2 pushfit coupler				
	75mm	5.00	each	140.00	700
	110mm	5.00	each	195.00	975
	Single tee with door				
	75x75x75 mm	5.00	each	219.00	1095
	110x110x110 mm	5.00	each	346.00	1730
	Bend 87.5°				
	75 mm bend	5.00	each	117.00	585
	110 mm bend	5.00	each	172.00	860
	Single tee without door 17.59.4				
	75mm	5.00	each	201.00	1005
	110mm	5.00	each	266.00	1330
6	Providing and fixing C.p brass bib cock of approved quality : 15 mm nominal bore 0.40kg				
	SOR IT NO> 18.31.1	4.00	each	840.00	3360
7	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete : 15 mm nominal bore				
	S.O.R.P-281/lt.No.18.14.1	1.00	each	316.00	316
8	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 15 mm nominal bore				
	S.O.R.P-284/lt.No.18.35.	1.00	each	714.00	714
9	Providing and fixing C.P. brass pillar cock approved quality and make conforming to IS:specification. 15 mm nominal bore 125 mm long foam flow.				
	S.O.R.P-284/lt.No.18.37.	2.00	each	1188.00	2376
10	Providing and fixing uPVC trap of self cleaning design complet. Including cost of cutting and making good the wall and floors. 17.61.1100 mm inlet and 75 mm outlet				
	sor ino 17.61.1	30.00	each	517.00	15510
11	Providing and fixing CPVC gate valve with knob of approved quality 18 13 32 mm nominal bore				

	sor ino 18.13.2	3.00	each	500.00	1500
12	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge.				
	Internal work - Exposed on wall				
	18.6.1.2 20 mm nominal outer dia .Pipes.	25.00	rm	153.00	3825
	18.6.1.3 25 mm nominal outer dia .Pipes.	25.00	rm	177.00	4425
13	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer-in-Charge.				
	18.6.2 Concealed work including cutting chases and making good the walls etc.				
	18.6.2.2 20 mm nominal outer dia .Pipes.	6.00	rm	234.00	1404
	18.6.2.3 25 mm nominal outer dia .Pipes.	9.00	rm	288.00	2592
	18.6.2.4 32 mm nominal outer dia .Pipes.	12.00	rm	360.00	4320
14	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : One urinal basin with 5 litre white P.V.C. automatic flushing cistern.				
	sor ino 17.6.1				
		1.00	EACH	2754.00	2754
15	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required Depth 200mm 610x510 mm bowl depth 200 mm.				
	sor ino.:17.14.2.1	1.00	EACH	4583.00	4583
	Total Part C				87714.00
	Total A+B+C				10079595

NAME OF WORK : ESTIMATE FOR CONSTRUCTION OF					
SHOPS					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part A:- UPTO PLINTH LEVEL					
Part 1					
1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil.				
	SOR IT NO 2.1.1				
		2.80	100 SQM	803.00	2248
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil				
	SOR IT NO 2.7.1				
	Total	388.80	CUM	147.00	57154
3	Extra rates for quantities of works, executed: In or under water and/or liquid mud, including pumping out water as required. The extra percentage rate is applicable in respect of each item but limited to quantities of work executed in these difficult conditions. The unit, namely, meter depth, to be considered for payment, shall be the depth measured from the sub soil water level up to the centre of gravity of the qty executed in difficult condition. The depth shall be reckoned correct to 0.10m, 0.05m or more shall be taken as 0.10m and less than 0.05m ignored.				
	SOR IT NO 2.23.1				
	Total	100.00	CUM	29.40	2940
4	Extra for every additional lift of 1.5 m or part thereof in excavation. (No extra lift is payable if work is done by mechanical means) 2.25.1 Soil All kinds of soil				
	SOR IT NO 2.25.2				
	Total	194.40	CUM	30.00	5832
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. M-15 - Grade concrete				
	SOR IT NO 4.1.2.1				

	Total	12.96	CUM	4403.00	57063
6	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. Upto plinth All works upto plinth level.				
	SOR IT NO. 5.27.1				
		136.19	CUM	6100.00	830729
7	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1				
		136.19	Cum	110.00	14980
8	Centering and shuttering including strutting, propping etc. and removal of form work for : 4.3.1 Foundations, footings, bases for columns.				
	SOR IT NO 4.3.1				
		28.80	SQM	169.00	4867
9	Centering and shuttering including strutting, propping etc. and removal of form for : (SOR I/5.9 P/66) LOWER FLOOR 5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.				
		254.40	SQM	190.60	48489
10	Centering and shuttering including strutting, propping etc. and removal of form for Walls (any thickness) including attached pilasters butters, plinth beams and string courses etc. Upto plinth level				
	SOR IT NO :5.9.2				
		495.75	SQM	219.00	108569

11	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding and all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:-1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR IT NO 5.16.6				
		17023.13	KG	80.00	1361850
12	Filling available excavated earth Filling available excavated earth (excluding hard rock/Ordinary 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.				
	sor it no 2.24				
	Total	314.48	CUM	95.00	29876
13	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm)				
	SOR IT NO 2.27.2				
		200.00	CUM	331.00	66200
14	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.				
	SOR IT NO 2.26				
	Total	40.00	CUM	672.00	26880
TOTAL Part A					2617676
Part B:- SUPER STRUCTURE					
S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT

1	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design.. Above plinth upto floor 5 All works above plinth level and upto floor five level				
	sor ino 5.27.2				
	COLUMN				
		65.00	CUM	6581.00	427765
2	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1	65.00	Cum	110.00	7150
3	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
	GF COLUMN				
		206.40	Sqm	521.20	107576
4	Centering and shuttering including strutting, propping etc. and removal of form for Lintels, beams, columns etc with ply Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
	Ground Floor				
		288.40	Sqm	521.20	150314
5	Centering and shuttering including strutting, propping etc. and removal of form for :Suspende5.9.20 d floors, roofs, landings,alconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works)				
	sor item no. 5.9.20				
		200.00	CUM	575.35	115070

6	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete. (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers.3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") 5.16.6 Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR it.no.5.16.6				
	(@140KG/CUM)	9100.00	KG	80.00	728000
7	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, in super structure above plinth level up to floor two level in :Having 75 kg / cm2average compressive strength 6.7.2.2 CM 1:6 Cement mortar 1:6 (1 cement : 6 sand)				
	Sor i no 6.7.2.2				
		121.30	CUM	5049.00	612434
8	Extra for M.S. bars in half brick masonry Extra for providing and placing in position 2 Nos. 8mm dia. M.S. bars at every third course of in half brick masonry				
	Sor Item No.6.17	121.30	Sqm	127.00	15405
9	12 mm cement plaster of mix : 13.1.2 1:6 (1 cement : 6 sand)				
	(SOR I/13.1.2)				
		1150.47	Sqm	160.00	184074
10	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:6 (1cement :6 sand) SOR IT NO 13.2.2				
	Outer Side of Building				
		810.00	Sqm	168.00	136080
11	Providing and fixing mesh in vertical and horizontal junction of RCC and brick/AAC work including scaffolding and all lead and lift etc. complete G.I. chicken mesh as per ISI specification and in the required width with 50mm long Bombay nails before plastering upt 10 meter height. SOR ITEM No 13.27.1				
	100 % OF PLASTER	810.00	Sqm	62.00	50220

12	Providing and fixing pressed steel door frames made of 1.6 mm thick steel profile conforming to IS: 4351 manufactured from commercial mild steel sheet including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.60 mm pressed mild steel welded or rigidly fixed together by mechanical means, including 2.5mm thick M.S. pressed butt hinges, with mortar guards, lock strike-plate and shock absorbers as specified filling the frame with Cement				
	Concrete 1:3:6 at site before fixing (cost of concrete to be paid separately) fixing with adjustable lugs (200 mm long & 1.0 mm thick) and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge: 10.12.5 Profile C of 1.25mm thick single rebate of size 100mmx50mm Fixing with adjustable lugs with split end tail to each jamb.				
	sor it no 10.12.5.1				
		15.60	RM	385.00	6006
13	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 shutter.35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.				
	SOR IT ON 9.18.1				
		6.30	Sqm	2823.00	17785
14	Extra for lipping Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured)				
	sor it no 9.21				
	GF FLOOR	12.60	Sqm	401.00	5053
15	Providing and applying white cement based putty of average thickness 1 mm, of approved brand over the plastered wall surface to prepare the surface even and smooth i/c all cost of material, labour and scaffold etc in all position complete. Note : Putty shall be applied only on the internal walls, for application on the exterior walls prior permission of APD/Chief Engineer will be required.				
	(SOR I/13.41)				
		1149.26	Sqm	74.00	85045
16	Finishing walls with textured exterior paint of required shade New work (Two or more coats applied @ 3.28 ltr/10 Sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 Sqm				
	(SOR I/13.51)				
	QTY SAME AS 15 MM PLASTER	1215.00	Sqm	132.00	160380

17	Exposed Concrete is composed of a mix natural and mix elements portland cement, hardest earthen material, special additives, natural grains and special polymers to create external beauty, aesthetic value and heritage effects of concrete. thickness 4mm to 6mm.(payment for providing grooves shall be made separately) First coat:- Base coat Apply of Cementous ready mix coarse dark grey color material for making of groove, applied on smooth plaster surface with the thickness of 0.75mm to 1.5mm by trowel Second coat:- Apply of Cementous ready mix fine material, applied on plaster surface with the thickness of 2mm to 3mm by trowel. with or with out groves as per requirement and with 6mm groves				
	(if grooves requires) with masking top of dark grey colour as per approved sample, for the complete satisfaction of architect/Engineer in charge. Third coat :- Protective clear top coat sealer (water based) applied by roller/sponge.				
	(SOR I/13.94)				
	QTY SAME AS 15 MM PLASTER	1215.00	Sqm	1586.00	1926990
18	Indian ethnic art painting such as tribal Art Pithora or warli/Gond or Bhil Painting on any wall surface (interior or exterior) by using textured/smooth exterior/interior paint of approved brand or Manufacturer including preparation of surface and cost of all material labour and scaffolding etc. complete as per direction of Engineer-in-charge.				
	(SOR I/13.93)				
	QTY SAME AS 15 MM PLASTER	1215.00	Sqm	1988.00	2415420
19	Wall painting by any mechanical or manual means with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre. of approved brand and manufacture, including applying additional coats wherever required to achieve even shade. SOR 13.49				
	(SOR I/13.49)				
		1723.89	Sqm	90.00	155150
20	Finishing walls by any mechanical or manual means with Acrylic Smooth exterior paint (Economy Exterior) of required shade including all scaffolding. New work (Two or more coat applied @1.67ltr/10sqm over and including one coat undiluted exterior waterproofing coating @ 2.39 litre/10 sqm with crack bridging ability of upto 0.5mm on horizontal surfaces with an elongation of 150% and water proofing of upto 3 bars on vertical surface SOR 13.52				
	(SOR I/13.52)				

21	<p>Rotowall finishing Providing and Applying Rotowall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR 13.81</p>				
	(SOR I/13.81)				
		150.00	Sqm	324.00	48600
22	<p>Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture</p>				
	(SOR I/13.65)				
		2.88		77.00	222
23	<p>Providing and fixing factory made UPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of UPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), appropriate dimension of UPVC extruded glazing beads and UPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg),</p>				
	<p>G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)</p>				
		2.88	Sqm	6371.00	18348

19	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 12 mm mild steel U beading. SOR ITEM No 9.124.2				
	With 12 mm mild steel U beading.				
		2.88	Sqm	1370.00	3946
20	Filling the gap in between aluminium frame and adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.Upto 5mm depth and 5 mm width				
	(SOR I/21.9)				
	Ground Floor				
		5.76	mtr	53.00	305
21	Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in flooring laid on 20mm thick cement mortar 1:4(1cement :4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shade etc.. (c) Size 600X600 mm thickness 11-12mm (to be used heavy duty indoor areas of non residential buildings only such as schools, hostels, libraries hospitals, institutions, offices etc.) SOR Item No. 11.80.2.3				
	Ground Floor				
		176.10	Sqm	1546.00	272251
22	Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in skirting, riser laid on 12mm thick cement mortar 1:4 (1cement : 4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shades etc. (b) Size 600X600mm thickness 9-10mm SOR Item No. 11.81.2.2				
	Ground floor				
	10 % Of Vitrified	17.61	Sqm	1329.00	23404

23	Steel work in built up M.S. tubular section (round, square or rectangular hollow tubes etc.) trusses/frame work etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
	sor ino 10.14.2				
	15KG /Sqm	43.20	kg	123.00	5314
24	Providing and laying gang saw cut 18 mm thick, mirror polished premoulded (wherever required) and pre polished machine cut granite stonework in flooring of required size shape of approved shade, color and texture in flooring laid over 20 mm thick base of cement mortar 1:4 (1 Cement: 4 sand) including grouting the joints with white cement mixed with matching pigments epoxy touch ups etc. complete as per direction of Engineer-in-Charge. :				
	11.29.2 SArea of slab upto 0.50 sqm 11.29.2.1 Granite (fine grained) Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitte				
	SOR INO 11.29.1				
	Entrance stairs				
	TOTAL	153.75	Sqm	2705.00	415894
25	Providing and fixing 18mm thick gang saw cut mirror polished (pre moulded and pre polished) machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement : 4sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish wherever required etc. complete at all levels. samples approved by Engineer-in-charge. Raj Nagar plain/ White Marble/ Udaipur Green Marble/ Zebra black SOR Item No.11.22.1				
		3.00	Sqm	1797.00	5391
26	Providing edge moulding to 18mm thick marble stone counters, Vanities, window sills etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work. SOR ITEM No 11.40.2				
	Window Sill (Bottom) both edges				
	Entrance stair				
	TOTAL	294.00	RM	269.00	79086

27	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) : With float glass panes of 5.0 mm thickness (weight not less than 12.50 kg/sqm) SOR ITEM No 21.3.2				
	sor it no 21.3.3				
	Total	2.88	Sqm	948.00	2730
28	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :				
	9.74.1 125 mm 125x64x2.50 mm				
	GF				
		8	EACH	76.00	608
29	Grading roof for receiving water proofing treatment with 22.14.1 C.C. 1:2:4 Cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size)				
	sor ino 22.14.1				
		10.00	cum	6569.00	65690
30	22.14.2 CM 1:3 Cement mortar 1:3 (1 cement : 3 sand)				
		10.00	cum	9308.00	93080
31	Providing and Laying China Mosaic Flooring on Roof Top terrace slab with 6mm thick white or coloured galzed broken tiles in mini. 25 x 25mm size in sqaure or rectangular shape & laying in Cement mortar 1:3 after mixing water proofing material in proportion prescribed by the manufacturer with neat cement slurry at top including filling the gaps with grey cement to have smooth surface finish. NON SOR				
		200.00	cum	594.00	118800
32	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete including the cost of providing and fixing necessary 27.5cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to I.S. 4454- part-1 and M.S. top cover of required thickness for rolling shutters.				
	80x1.25mm M.S. laths with 1.25 mm thick top cover.				
		216.0	SQM	2200.0	475200
33	Providing and fixing ball bearing for rolling shutters. 10.9	40.0	EACH	366.0	14640
	Total Part B				8949424
	Total A+B				11567101

NAME OF WORK : ESTIMATE FOR CONSTRUCTION OF					
RAMP					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part A:- UPTO PLINTH LEVEL					
Part 1					
1	Providing, driving with hydraulic cast-in-situ plain piling rigs with power units and installing driven cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) :				
	SOR IT NO 2.7.1				
	450 mm dia piles	707.00	M	2061.00	1457127
2	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. Upto plinth All works upto plinth level.				
	SOR IT NO 5.27.1				
		400.07	CUM	6100.00	2440406
3	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1				
		400.07	Cum	110.00	44007
4	Centering and shuttering including strutting, propping etc. and removal of form for Walls (any thickness) in cluding attached pilasters butter esses, plinth beams and string courses etc. Upto plinth level SOR IT NO. :5.9.2				
	PLINTH BEAM				
		2156.80	SQM	219.00	472339

5	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding include all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:-1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on				
	“Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification”) Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR IT NO 5.16.6				
		50008.31	KG	80.00	4000665
6	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm)				
	SOR IT NO 2.27.2				
		900.00	CUM	331.00	297900
7	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.				
	SOR IT NO 2.26				
	Total	180.00	CUM	672.00	120960
8	Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement: 4 sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge. (area of slab more than 0.50 sqm). Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitter				
	SOR 11.31.1				
	Total	900.00	Sqm	3616.00	3254400

9	Providing and fixing stainless steel (Grade 304) railing made of Hollowtubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories and stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer- in-charge. (For payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).				
	SOR 10.25				
	Total	3000.00	Kg	582.00	1746000
TOTAL Part A 13833804					

NAME OF WORK :		ESTIMATE FOR PUBLIC TOILET			
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part 1					
1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m. All kinds of soil. SOR IT NO 2.1.1				
		1.20	100 SQM	803.00	964
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil SOR IT NO 2.7.1				
	Total	87.48	CUM	147.00	12860
3	Extra for every additional lift of 1.5 m or part thereof in excavation. (No extra lift is payable if work is done by mechanical means) 2.25.1 Soil All kinds of soil SOR IT NO 2.25.2				
	Total	43.74	CUM	30.00	1312
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. M-15 - Grade concrete SOR IT NO 4.1.2.1				
	Total	2.30	CUM	4403.00	10145

5	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. Upto plinth All works upto plinth level. 5.27.1				
		38.16	CUM	6100.00	232752
6	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1	38.16	Cum	110.00	4197
7	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns. SOR IT NO 4.3.1				
		6.48	SQM	169.00	1095
8	Centering and shuttering including strutting, propping etc. and removal of form for : (SOR I/5.9 P/66) 5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.	57.24	SQM	190.60	10910
9	Centering and shuttering including strutting, propping etc. and removal of form for Walls (any thickness) including attached pilasters buttresses, plinth beams and string courses etc. Upto plinth level :5.9.2				
		138.50	SQM	219.00	30332

10	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding ire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on				
	“Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification”) Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR IT NO 5.16.6				
		4197.16	KG	80.00	335773
11	Filling available excavated earth Filling available excavated earth (excluding hard rock/Ordinary 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.				
	sor it no 2.24				
	Total	71.37	CUM	95.00	6780
12	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm)				
	SOR IT NO 2.27.2				
		100.00	CUM	331.00	33100
13	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.				
	SOR IT NO 2.26				
	Total	20.00	CUM	672.00	13440
TOTAL Part A					693658
Part B:- SUPER STRUCTURE					
S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT

1	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design.. Above plinth upto floor 5 All works above plinth level and upto floor five level				
	sor ino 5.27				
	COLUMN				
		32.95	CUM	6581.00	216818
2	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1	32.95	Cum	110.00	3624
3	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
		56.52	Sqm	521.20	29458
4	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns etc with ply Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	Ground Floor				
		73.50	Sqm	521.20	38308

5	Centering and shuttering including strutting, propping etc. and removal of form for :Suspende5.9.20 d floors, roofs, landings,alconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works) (sor item no. 5.9.20)				
	Ground Floor				
	Slab	100.00	SQM	575.35	57535
6	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detaling IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete. (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers.3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") 5.16.6 Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786 SOR it.no.5.16.6				
	(@110KG/CUM)	3283.50	KG	80.00	262680
7	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, in super structure above plinth level up to floor two level in :Having 75 kg / cm2average compressive strength 6.7.2.2 CM 1:6 Cement mortar 1:6 (1 cement : 6 sand) aor i no 6.7.2.2				
		36.43	CUM	5049.00	183940
8	12 mm cement plaster of mix : 13.1.2 1:6 (1 cement : 6 sand) (SOR I/13.1.2)				
		455.63	Sqm	160.00	72901
9	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:6 (1cement :6 sand) SOR IT NO 13.2.2				
	Outer Side of Building				
		240.00	Sqm	168.00	40320

10	Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR IT NO 13.81				
		264.00	SQM	324.00	85536
11	Providing and fixing mesh in vertical and horizontal junction of RCC and brick/AAC work including scaffolding and all lead and lift etc. complete G.I. chicken mesh as per ISI specification and in the required width with 50mm long Bombay nails before plastering up to 10 meter height. SOR ITEM No 13.27.1				
	100 % OF PLASTER	264.00	Sqm	62.00	16368
12	Providing and fixing pressed steel door frames made of 1.6 mm thick steel profile conforming to IS: 4351 manufactured from commercial mild steel sheet including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.60 mm pressed mild steel welded or rigidly fixed together by mechanical means, including 2.5mm thick M.S. pressed butt hinges, with mortar guards, lock strike-plate and shock absorbers as specified filling the frame with Cement Concrete 1:3:6 at site before fixing (cost of concrete to be paid separately) fixing with adjustable lugs (200 mm long & 1.0 mm thick) and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge: 10.12.5 Profile C of 1.25mm thick single rebate of size 100mmx50mm 10.12.5.1 Fixing with adjustable lugs with split end tail to each jamb. SOR 10.12.5.1				
	sor it no 10.12.5.1				
		60.90	RM	385.00	23447

13	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 shutter.35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.				
	SOR IT ON 9.18.1				
		22.05	Sqm	2823.00	62247
14	Extra for lipping Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured)				
	sor it no 9.21				
		37.20	Sqm	401.00	14917
15	Providing and applying white cement based putty of average thickness 1 mm, of approved brand over the plastered wall surface to prepare the surface even and smooth i/c all cost of material, labour and scaffold etc in all position complete. Note : Putty shall be applied only on the internal walls, for application on the exterior walls prior permission of APD/Chief Engineer will be required.				
	(SOR I/13.41)				
		455.14	Sqm	74.00	33681
16	Finishing walls with textured exterior paint of required shade New work (Two or more coats applied @ 3.28 ltr/10 Sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 Sqm. SOR13.51				
	(SOR I/13.51)				
	QTY SAME AS 15 MM PLASTER	360.00	Sqm	132.00	47520

17	<p>Exposed Concrete is composed of a mix natural and mix elements portland cement, hardest earthen material, special additives, natural grains and special polymers to create external beauty, aesthetic value and heritage effects of concrete. thickness 4mm to 6mm.(payment for providing grooves shall be made separately)</p> <p>First coat:- Base coat Apply of Cementous ready mix coarse dark grey color material for making of groove, applied on smooth plaster surface with the thickness of 0.75mm to 1.5mm by trowel</p> <p>Second coat:-Apply of Cementous ready mix fine material, applied on plaster surface with the thickness of 2mm to 3mm by trowel. with or with out groves as per requirement and with 6mm groves (if grooves requires) with masking top of dark grey colour as per approved sample, for the complete satisfaction of architect/Engineer in charge. Third coat :- Protective clear top coat sealer (water based) applied by roller/sponge.</p> <p>SOR 13.94</p>				
	(SOR I/13.51)				
	QTY SAME AS 15 MM PLASTER	360.00	Sqm	1586.00	570960
18	<p>Wall painting by any mechanical or manual means with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre. of approved brand and manufacture, including applying additional coats wherever required to achieve even shade. SOR 13.49</p>				
	(SOR I/13.49)				
		150.00	Sqm	90.00	13500
19	<p>Finishing walls by any mechanical or manual means with Acrylic Smooth exterior paint (Economy Exterior) of required shade including all scaffolding. New work (Two or more coat applied @1.67ltr/10sqm over and including one coat undiluted exterior waterproofing coating @ 2.39 litre/10 sqm with crack bridging ability of upto 0.5mm on horizontal surfaces with an elongation of 150% and water proofing of upto 3 bars on vertical surface SOR 13.52</p>				
	(SOR I/13.52)				
		360.00	Sqm	138.00	49680
20	<p>Roto wall finishing Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR 13.81</p>				

	(SOR I/13.81)				
		150.00	Sqm	324.00	48600
21	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture				
	(SOR I/13.65)				
		4.86		77.00	374
22	Providing and fixing factory made UPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of UPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), appropriate dimension of UPVC extruded glazing beads and UPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of				
	Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)				
		4.86	Sqm	6371.00	30963
23	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 12 mm mild steel U beading. SOR ITEM No 9.124.2				
	With 12 mm mild steel U beading.				
		4.86	Sqm	1370.00	6658

24	<p>Providing and fixing made UPVC white colour casement/ casement cum fixed glazed door comprising of UPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), UPVC extruded glazing beads of appropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hinges and one handle on each side of panels along with zinc plated mild steel multi point locking having transmission gear, cylinder with keeps and one side key, G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws, etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant shall be paid separately). Note: - For UPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable. Variation in profile dimension in higher side shall be</p>				
	<p>Casement door with 3D hinges made of (big series) frame 67 x 64 mm & sash 67 x 110 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead / double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm)</p>				
	<p>SOR IT NO 9.169.1</p>				
	<p>Toilet Door</p>	<p>4.50</p>	<p>Sqm</p>	<p>7085.00</p>	<p>31883</p>
25	<p>Filling the gap in between aluminium frame and adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete. Upto 5mm depth and 5 mm width</p>				
	<p>(SOR I/21.9)</p>				
		<p>9.72</p>	<p>mtr</p>	<p>53.00</p>	<p>515</p>

26	<p>Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in flooring laid on 20mm thick cement mortar 1:4(1cement :4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shade etc.. (c) Size 600X600 mm thickness 11-12mm (to be used heavy duty indoor areas of non residential buildings only such as schools, hostels, libraries hospitals, institutions, offices etc.) SOR Item No. 11.80.2.3</p>				
		69.52	Sqm	1546.00	107478
27	<p>Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in skirting, riser laid on 12mm thick cement mortar 1:4 (1cement : 4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shades etc. (b) Size 600X600mm thickness 9-10mm SOR Item No. 11.81.2.2</p>				
	10 % Of Vitrified	6.95	Sqm	1329.00	9239
28	<p>Providing and fixing Ceramic glazed wall tiles 300x450 mm or more (having thickness 6 to 7 mm) of 1st quality conforming to IS: 15622 of approved make in all Colours& shades, except burgundy, bottle green, black laid on 12mm thick bed of Cement Mortar 1:3 (1 Cement: 3 sand)prepad same day when mortar is still green jointed with grey cement slurry @3.3 kg per Sqm including pointing the joints with white cement and matching pigments etc., complete. SOR 11.50</p>				
		81.09	Sqm	776.00	62926
29	<p>Providing and laying Ceramic glazed floor tiles 300x300 mm or more (having thickness 6 to 7mm) of 1st quality conforming to IS : 15622 of approved make in any colours and shade laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 sand) including pointing the joints with white cement and matching pigment etc., complete. SOR 11.49</p>				
		21.00	Sqm	670.00	14070

30	Steel work in built up M.S. tubular section (round, square or rectangular hollow tubes etc.) trusses/frame work etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washer etc. complete.				
	sor ino 10.14.2				
	15KG /Sqm	76.95	kg	123.00	9465
31	Extra for providing vision panel not exceeding 0.1 Sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :				
	(SOR I/9.22 P/136)				
	Total	4.86	Sqm	157.00	763
32	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size) (9.48)				
	Total	10	Each	95.00	950
33	Providing and fixing bright finished brass 100 mm mortise latch and lock ISI marked with six levers and a pair of anodized (anodic coating not less than grade AC 10 as per IS : 1868) aluminum lever handles with necessary screws etc. complete (Best make of approved quality).				
	sor ino 9.84				
	MAIN DOOR	20	Each	820.00	16400
34	Providing and laying gang saw cut 18 mm thick, mirror polished premoulded (wherever required) and pre polished machine cut granite stonework in flooring of required size shape of approved shade, color and texture in flooring laid over 20 mm thick base of cement mortar 1:4 (1 Cement: 4 sand) including grouting the joints with white cement mixed with matching pigments epoxy touch ups etc. complete as per direction of Engineer-in-Charge. :				
	11.29.2 SArea of slab upto 0.50 sqm 11.29.2.1 Granite (fine grained) Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitte				
	SOR INO 11.29.1				
	TOTAL	38.18	Sqm	2705.00	103263

35	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement : 4sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish wherever required etc. complete at all levels. samples approved by Engineer-in-charge. Raj Nagar plain/ White Marble/ Udaipur Green Marble/ Zebra black SOR Item No.11.22.1				
		10.50	Sqm	1797.00	18869
36	Providing and fixing stone slab table rubbed on both faces edges rounded and polished of size as required and 1.8 cm thick fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement: 2 sand: 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in- charge and finished smooth. White Agaria Marble Stone. SOR ITEM No 11.64.1				
		6.75	Sqm	3046.00	20561
37	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) : With float glass panes of 5.0 mm thickness (weight not less than 12.50 kg/sqm) SOR ITEM No 21.3.2 sor it no 21.3.3				
	Total	4.86	Sqm	948.00	4607
38	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete : 9.74.1 125 mm 125x64x2.50 mm GF				
		40	EACH	76.00	3040
39	Grading roof for receiving water proofing treatment with 22.14.1 C.C. 1:2:4 Cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size) sor ino 22.14.1				
		5.00	cum	6569.00	32845
40	22.14.2 CM 1:3 Cement mortar 1:3 (1 cement : 3 sand)				
		5.00	cum	6308.00	16510

41	Providing and Laying China Mosaic Flooring on Roof Top terrace slab with 6mm thick white or coloured galzed broken tiles in mini. 25 x 25mm size in sqaure or rectangular shape & laying in Cement mortar 1:3 after mixing water proofing material in proportion prescribed by the manufacturer with neat cement slurry at top including filling the gaps with grey cement to have smooth surface finish. NON SOR				
		100.00	cum	594.00	59400
Total Part B					2452848

INTERNAL WATER SUPPLY

1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required : 17.2.1 W.C. pan with ISI marked white solid plastic seat and lid				
	sor ino 17.2.1	8	each	3036.00	24288
2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps,32 mm C.P. brass wa ste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require : .17.11.4 White Vitreous China Flat back wash basin size 450x300 mm with single 15 mm C.P. brass pillar tap.				
	17.11.4) White Vitreous China Flat back wash basin size 550x400mm with single 15 mm C.P. brass pillar tap.				
	S.O.R.P-292/It.No.17.11.4	6.00	each	1664.00	9984
3	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
	sor i.no. 18.49 pg.no-330	10000.00	ltr	7.00	70000
4	Providing and fixing on wall face unplasticised Rigid PVC Rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.for soil and wast pipes Single socketed pipes for working pressure of 4 kg./cm2 S.O.R.P-301/It.No.17.58				

	17.58.175 mm diameter (minimum wall thickness 3.2mm)	200.00	rm	136.00	27200
	17.58.2 110 mm diameter (minimum wall thickness 3.2mm)	200.00	rm	238.00	47600
5	Providing and fixing on wall face unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC Rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS :5382 leaving 10 mm gap for thermal expansion. S.O.R.P-301/lt.No.17.59				
	S.O.R.P-301/lt.No.17.59.1 Coupler				
	75MM	20.00	each	117.00	2340
	110mm	20.00	each	154.00	3080
	S.O.R.P-301/lt.No.17.59.2 pushfit coupler				
	75mm	20.00	each	140.00	2800
	110mm	20.00	each	195.00	3900
	Single tee with door				
	75x75x75 mm	20.00	each	219.00	4380
	110x110x110 mm	20.00	each	346.00	6920
	Bend 87.5°				
	75 mm bend	20.00	each	117.00	2340
	110 mm bend	20.00	each	172.00	3440
	Single tee without door 17.59.4				
	75mm	20.00	each	201.00	4020
	110mm	20.00	each	266.00	5320
6	Providing and fixing C.p brass bib cock of approved quality : S.O.R.P-330/lt.No.18.31.1				
	18.31.1) 15 mm nominal bore 0.40kg	20.00	each	840.00	16800
7	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
	S.O.R.P-281/lt.No.18.14.1 15 mm nominal bore	5.00	each	316.00	1580
8	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
	S.O.R.P-284/lt.No.18.35. 15 mm nominal bore	10.00	each	714.00	7140
9	Providing and fixing C.P. brass pillar cock approved quality and make conforming to IS:specification. 15 mm nominal bore 125 mm long foam flow.				
	S.O.R.P-284/lt.No.18.37.	10.00	each	1188.00	11880
10	Providing and fixing uPVC trap of self cleaning design complet. Including cost of cutting and making good the wall and floors. 17.61.1100 mm inlet and 75 mm outlet				
	sor ino 17.61.1	80.00	each	517.00	41360

11	Providing and fixing CPVC gate valve with knob of approved quality.18.13 32 mm nominal bore				
	sor ino 18.13.2	5.00	each	500.00	2500
12	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing.This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of jointscomplete as per direction of Engineer-in-Charge.				
	Internal work - Exposed on wall				
	18.6.1.2 20 mm nominal outer dia .Pipes.	500.00	rm	153.00	76500
	18.6.1.3 25 mm nominal outer dia .Pipes.	500.00	rm	177.00	88500
13	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing.This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of jointscomplete as per direction of Engineer-in-Charge.				
	18.6.2 Concealed work including cutting chases and making good the walls etc.				
	18.6.2.2 20 mm nominal outer dia .Pipes.	120.00	rm	234.00	28080
	18.6.2.3 25 mm nominal outer dia .Pipes.	150.00	rm	288.00	43200
	18.6.2.4 32 mm nominal outer dia .Pipes.	180.00	rm	360.00	64800
14	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350mm and 340x410x265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :sor ino 17.6.1				
	One urinal basin with 5 litre white P.V.C. automatic flushing cistern.				
		5.00	EACH	2754.00	13770
15	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :17.14.2.1 Depth 200mm 610x510 mm bowl depth 200 mm.				

		1.00	EACH	4583.00	4583
	Total Part C				618305
SEPTIC TANK 150 USER CAPACITY					
A	COLLECTION TANK				
1	Surface dressing of the ground including removing vegetation and in-equalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m. in all kinds of soil. SOR Item No. 2.1	0.90	Sqm	803	722.70
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil SOR Item No. 2.6				
		146.54	Cum	147	21541.36
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level :With 40mm nominal size graded stone aggregate.Nominal Mix -1 Cement : 3 sand : 6 graded stone aggregate (M 10)SOR ITEM NO 4.1.2.2				
		6.31	Cum	3808	24011.39

4	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-25 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. All works above plinth level and upto floor five level.				
		31.30	Cum	6100	190901.0
5	Centering and shuttering including strutting, propping etc. and removal of form work for :Foundations, footings, bases for columns. SOR It. No. 5.9.1				
		6.32	Sqm	191	1204.59
6	Centering and shuttering including strutting, propping etc. and removal of form for: Walls (any thickness) including attached pilasters butresses, plinth beams and string courses etc Above plinth upto 3.6 m height from plinth level SOR Item No. 5.9.2.2				
		192.60	Sqm	330	63558.00
7	Suspended floors with ply Suspended floors, roofs, landings, balconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works) SOR I. NO. 5.9.20				
		41.07	Sqm	575	23629.62

8	<p>Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete .</p> <p>(Note:-</p> <p>1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.</p> <p>2. No extra payment shall be done for overlaps and/or couplers.</p> <p>3. Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification")</p> <p>Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786</p> <p>SOR Item No. 5.16.6</p>				
	Total Qty of RCC @115 kg	3598.95	kg	80	287916
9	<p>Filling available excavated earth (excluding hard rock/Ordinary 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.</p> <p>SOR Item No. 2.24</p>				
	Qty of excavation	108.94	Cum	95	10349.22
10	<p>15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix 1:4 1:4 (1 cement : 4 sand) SOR Item No.13.5.2</p>				
		107.15	Sqm	220	23573.00

11	Providing, hoisting and fixing up to floor two level precast reinforced cement concrete in lintels, manhole cover, shelves and like including setting in cement mortar 1:3 (1 cement : 3 sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement with M 15 –Grade Concrete. SOR It. No. 5.11				
	Manhole Cover	0.28	Cum	7830	2202.19
	Total Part D				649609
	Total A+B+C+D				4414420

NAME OF WORK : ESTIMATE FOR PANDIT JI BUILDING					
S No.	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part 1					
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil				
	SOR IT NO 2.7.1				
	Total	288.00	CUM	147.00	42336
	Extra for every additional lift of 1.5 m or part thereof in excavation. (No extra lift is payable if work is done by mechanical means) 2.25.1 Soil All kinds of soil				
	SOR IT NO 2.25.2				
	Total	240.00	CUM	30.00	7200
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. 4.1.2.1 M-15 M-15 - Grade concrete				
	SOR IT NO 4.1.2.1				
	Total	12.96	CUM	4403.00	57063
	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. 5.27.1 Upto plinth All works upto plinth level.				
		129.55	CUM	6100.00	790255
	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1	129.55	Cum	110.00	14251
	Centering and shuttering including strutting, propping etc. and removal of form work for : 4.3.1 Foundations, footings, bases for columns.				
	SOR IT NO 4.3.1				
		28.80	SQM	169.00	4867
	Centering and shuttering including strutting, propping etc. and removal of form for : (SOR I/5.9 P/66) LOWER FLOOR 5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.				
		254.40	SQM	190.60	48489

	Centering and shuttering including strutting, propping etc. and removal of form for :5.9.2 Walls (any thickness) including attached pilasters buttresses, plinth beams and string courses etc. Upto plinth level				
	PLINTH BEAM				
		299.90	SQM	219.00	65678
	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:-1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR IT NO 5.16.6				
		16193.75	KG	80.00	1295500
	Filling available excavated earth Filling available excavated earth (excluding hard rock/Ordinary 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				
	sor it no 2.24				
	Total	212.08	CUM	95.00	20148
	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm)				
	SOR IT NO 2.27.2				
		400.00	CUM	331.00	132400
	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.SOR IT NO 2.26				
	SOR IT NO 2.26				
	Total	80.00	CUM	672.00	53760
	Total Part A				2531946
	Part B:- SUPER STRUCTURE				
S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
1	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design.. 5.27.2 Above plinth upto floor 5 All works above plinth level and upto floor five level				
	sor ino 5.27				
	COLUMN				
		190.99	CUM	6581.00	1256930
2	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1	190.99	Cum	110.00	21009
3	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
	GF COLUMN				
		576.00	Sqm	521.20	300211
4	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns etc with ply Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	Ground Floor				
		757.60	Sqm	521.20	394861
5	Centering and shuttering including strutting, propping etc. and removal of form for :Suspende5.9.20 d floors, roofs, landings,alconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works) (sor item no. 5.9.20)				
	Ground Floor				
		418.23	CUM	575.35	240626

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
6	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete. (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers.3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") 5.16.6 Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786 SOR it.no.5.16.6				
	(@140KG/CUM)	26739.13	KG	80.00	2139130
7	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, in super structure above plinth level up to floor two level in :Having 75 kg / cm2average compressive strength 6.7.2.2 CM 1:6 Cement mortar 1:6 (1 cement : 6 sand) aor i no 6.7.2.2				
	Ground Floor				
		116.46	CUM	5049.00	588027
8	Half brick masonry fly ash lime bricks Half brick masonry with fly ash lime Gypsum bricks (FALG bricks) conforming to IS: 12894, in super structure above plinth and upto floor two level.6.15.2 75 kg/cm2 Having 75 kg/cm2 average compressive strength. 6.15.2.2 CM 1:4 Cement mortar 1 : 4 (1 cement : 4 sand)				
	Cement mortar 1:4 (1 cement : 4 sand)				
		173.44	sqm	505.00	87587
9	Extra for M.S. bars in half brick masonry Extra for providing and placing in position 2 Nos. 8mm dia. M.S. bars at every third course of in half brick masonry				
	Sor Item No.6.17	173.44	Sqm	127.00	22027
10	12 mm cement plaster of mix : 13.1.2 1:6 (1 cement : 6 sand) (SOR I/13.1.2)				
		1383.72	Sqm	160.00	221395
11	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:6 (1cement :6 sand) SOR IT NO 13.2.2				
		729.00	Sqm	168.00	122472
12	Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR IT NO 13.81				
		729.00	Sqm	324.00	236196

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
13	Providing and fixing mesh in vertical and horizontal junction of RCC and brick/AAC work including scaffolding and all lead and lift etc. complete G.I. chicken mesh as per ISI specification and in the required width with 50mm long Bombay nails before plastering up to 10 meter height. SOR ITEM No 13.27.1				
	100 % OF PLASTER	2112.72	Sqm	62.00	130989
14	Providing and fixing pressed steel door frames made of 1.6 mm thick steel profile conforming to IS: 4351 manufactured from commercial mild steel sheet including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.60 mm pressed mild steel welded or rigidly fixed together by mechanical means, including 2.5mm thick M.S. pressed butt hinges, with mortar guards, lock strike-plate and shock absorbers as specified filling the frame with Cement Concrete 1:3:6 at site before fixing (cost of concrete to be paid separately) fixing with adjustable lugs (200 mm long & 1.0 mm thick) and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge: 10.12.5 Profile C of 1.25mm thick single rebate of size 100mmx50mm 10.12.5.1 Fixing with adjustable lugs with split end tail to each jamb. SOR 10.12.5.1				
	sor it no 10.12.5.1	20.80	RM	385.00	8008
15	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 shutter. 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.				
	SOR IT ON 9.18.1	8.40	Sqm	2823.00	23713
16	Extra for lipping Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured)				
	sor it no 9.21	16.80	Sqm	401.00	6737
17	Providing and fixing ISI marked stainless steel sliding door bolts with nuts and screws etc. complete :9.65.1				
	300x16 mm	8.00	EACH	326.00	2608
18	Providing and fixing ISI marked stainless steel tower bolt black finish, (Barrel type) with necessary screws etc. complete				
	300x10 mm				
	(SOR I/9.66.1)				
	Total	8.00	EACH	148.00	1184
19	Providing and fixing ISI marked stainless steel handles with necessary screws etc. complete :				
	125 mm				
	(SOR I/9.69.1)				
	Total	16.00	EACH	60.00	960

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
20	Providing and fixing aluminium hanging floor door stopper ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade with necessary screws etc. complete. (SOR I/9.114.2)				
	Total	108.00	EACH	86.00	9288
22	Providing and applying white cement based putty of average thickness 1 mm, of approved brand over the plastered wall surface to prepare the surface even and smooth i/c all cost of material, labour and scaffold etc in all position complete. Note : Putty shall be applied only on the internal walls, for application on the exterior walls prior permission of APD/Chief Engineer will be required. (SOR I/13.41)				
	Ground Floor				
	Celling				
		946.76	Sqm	74.00	70060
23	Finishing walls with textured exterior paint of required shade New work (Two or more coats applied @ 3.28 ltr/10 Sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 Sqm. SOR13.51 (SOR I/13.51)				
	QTY SAME AS 15 MM PLASTER	1093.50	Sqm	132.00	144342
24	Exposed Concrete is composed of a mix natural and mix elements portland cement, hardest earthen material, special additives, natural grains and special polymers to create external beauty, aesthetic value and heritage effects of concrete. thickness 4mm to 6mm.(payment for providing grooves shall be made separately) First coat:- Base coat Apply of Cementous ready mix coarse dark grey color material for making of groove, applied on smooth plaster surface with the thickness of 0.75mm to 1.5mm by trowel Second coat:-Apply of Cementous ready mix fine material, applied on plaster surface with the thickness of 2mm to 3mm by trowel. with or with out groves as per requirement and with 6mm groves (if grooves requires) with masking top of dark grey colour as per approved sample, for the complete satisfaction of architect/Engineer in charge. Third coat :- Protective clear top coat sealer (water based) applied by roller/sponge. SOR 13.94 (SOR I/13.94)				
		120.00	Sqm	1586.00	190320
25	Indian ethnic art painting such as tribal Art Pithora or warli/Gond or Bhil Painting on any wall surface (interior or exterior) by using textured/smooth exterior/interior paint of approved brand or Manufacturer including preparation of surface and cost of all material labour and scaffolding etc. complete as per direction of Engineer-in-charge. SOR 13.93 (SOR I/13.93)				
		75.00	Sqm	1988.00	149100
26	Wall painting by any mechanical or manual means with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre. of approved brand and manufacture, including applying additional coats wherever required to achieve even shade. SOR 13.49 (SOR I/13.49)				
		1420.14	Sqm	90.00	127813

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
27	Finishing walls by any mechanical or manual means with Acrylic Smooth exterior paint (Economy Exterior) of required shade including all scaffolding. New work (Two or more coat applied @1.67ltr/10sqm over and including one coat undiluted exterior waterproofing coating @ 2.39 litre/10 sqm with crack bridging ability of upto 0.5mm on horizontal surfaces with an elongation of 150% and water proofing of upto 3 bars on vertical surface SOR 13.52 (SOR I/13.52)				
		1093.50	Sqm	138.00	150903
28	Roto wall finishing Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR 13.81 (SOR I/13.81)				
		300.00	Sqm	324.00	97200
29	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture (SOR I/13.65)				
		56.88		77.00	4380
30	Providing and fixing factory made UPVC white colour sliding glazed window upto 1.50 m in height dimension comprising of UPVC multi-chambered frame with in-built roller track and sash extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to UPVC profile), appropriate dimension of UPVC extruded glazing beads and UPVC extruded interlocks, EPDM gasket, wool pile, zinc alloy (white powder coated) touch locks with hook, zinc alloy body with single nylon rollers (weight bearing capacity to be 40 kg), G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of Three track three panels sliding window with fly proof S.S wire mesh (Two nos. glazed & one no. wire mesh panels) made of frame 116 x 45 mm & sash 46 x 62 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/double glazing bead of appropriate dimension. (Area of window above 1.75 sqm)				
		47.88	Sqm	6371.00	305043

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
31	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 12 mm mild steel U beading. SOR ITEM No 9.124.2				
	With 12 mm mild steel U beading.	47.88	Sqm	1370.00	65596
33	Filling the gap in between aluminium frame and adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.Upto 5mm depth and 5 mm width				
	(SOR I/21.9)				
	Ground Floor	95.76	mtr	53.00	5075
34	Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in flooring laid on 20mm thick cement mortar 1:4(1cement :4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shade etc.. (c) Size 600X600 mm thickness 11-12mm (to be used heavy duty indoor areas of non residential buildings only such as schools, hostels, libraries hospitals, institutions, offices etc.) SOR Item No. 11.80.2.3				
	Ground Floor	800.00	Sqm	1546.00	1236800
35	Providing and laying vitrified floor-tiles Full Body Design Homogenous Body matt/rustic finish in different size with water absorption less than 0.05% and conforming to IS:15622 of approved make in all colours& shades, 1st quality/ premium quality in skirting, riser laid on 12mm thick cement mortar 1:4 (1cement : 4sand) including grouting the joints with white cement and matching pigments etc. complete In dark colour and shades etc. (b) Size 600X600mm thickness 9-10mm SOR Item No. 11.81.2.2				
		80.00	Sqm	1329.00	106320
36	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and mirror polishing complete with base of cement mortar 1 : 4 (1 cement : 4 sand) 25 mm thick.(Area of slab to be over 0.25 sqm) Note: - Deduction shall be made for not mirror polishing according to item no 11.43 SOR 11.36				
		49.20	Sqm	1174.00	57761

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
37	Providing and fixing Ceramic glazed wall tiles 300x450 mm or more (having thickness 6 to 7 mm) of 1st quality conforming to IS: 15622 of approved make in all Colours& shades, except burgundy, bottle green, black laid on 12mm thick bed of Cement Mortar 1:3 (1 Cement: 3 sand)prepad same day when mortar is still green jointed with grey cement slurry @3.3 kg per Sqm including pointing the joints with white cement and matching pigments etc., complete. SOR 11.50				
		26.72	Sqm	776.00	20735
38	Providing and laying Ceramic glazed floor tiles 300x300 mm or more (having thickness 6 to 7mm) of 1st quality conforming to IS : 15622 of approved make in any colours and shade laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 sand) including pointing the joints with white cement and matching pigment etc., complete. SOR 11.49				
		12.00	Sqm	670.00	8040
39	Steel work in built up M.S. tubular section (round, square or rectangular hollow tubes etc.) trusses/frame work etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washeretc. complete.				
	sor ino 10.14.2				
	15KG /Sqm	718.20	kg	123.00	88339
40	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying a priming coat of approved steel primer.10.23.1 M.S. tube.				
	sor ino 10.23				
		504.00	Kg	117.00	58968
41	Extra for providing vision panel not exceeding 0.1 Sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured) :				
	(SOR I/9.22 P/136)				
	9.22.1 Rectangular or square.				
	Total	7.20	Sqm	157.00	1130
42	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 sand : 6 graded stone aggregate 20mm nominal size) (9.48)				
	Total	100	Each	95.00	9500
44	Providing and laying gang saw cut 18 mm thick, mirror polished premoulded (wherever required) and pre polished machine cut granite stonework in flooring of required size shape of approved shade, color and texture in flooring laid over 20 mm thick base of cement mortar 1:4 (1 Cement: 4 sand) including grouting the joints with white cement mixed with matching pigments epoxy touch ups etc. complete as per direction of Engineer-in-Charge. :				
	11.29.2 SArea of slab upto 0.50 sqm 11.29.2.1 Granite (fine grained) Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitte				

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
	SOR INO 11.29.1				
	STAIR				
	TOTAL	44.90	Sqm	2705.00	121455
45	Providing and fixing 18mm thick gang saw cut mirror polished (premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1cement : 4sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing moulding and polishing to edge to give high gloss finish wherever required etc. complete at all levels. samples approved by Engineer-in-charge. Raj Nagar plain/ White Marble/ Udaipur Green Marble/ Zebra black SOR Item No.11.22.1				
		39.00	Sqm	1797.00	70083
46	Providing edge moulding to 18mm thick marble stone counters, Vanities, window sills etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge. Granite work. SOR ITEM No 11.40.2				
	Window Sill (Bottom) both edges				
	STAIR				
	TOTAL	358.50	RM	269.00	96437
47	Providing and laying Antiskid floor tiles of any sizes, 12 mm thickness with water absorption less than 0.08% and conforming to IS:15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 sand) including grouting the joints with white cement with matching pigments etc., complete. SOR ITEM No 11.52				
		2.25	Sqm	880.00	1980
48	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry. SOR ITEM No 22.5				
	SOR IT ON 22.5				
		28.20	Sqm	207.00	5837
49	providing & laying in position auto claved aeriared concrete block place in sunken portion of w/c bathtoom etc. of specified grade 1:4:8 (1 cement:4 sand:8 graded acc aggregate) with 60mm and down upto 20mm nominal size graded acc ageegate excluding the cost of centering shuttering. NON-SOR				

S.N.	PARTICULAR	QTY	UNIT	RATE	AMOUNT
		12.69			
		12.69	Cum	3303.00	41915
50	Providing and fixing bevelled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers complete. SOR ITEM No 17.67				
	sor it no 21.3.3				
	Total	1.20	Sqm	2440.00	2928
51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber/ neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item) : With float glass panes of 5.0 mm thickness (weight not less than 12.50 kg/sqm) SOR ITEM No 21.3.2				
	sor it no 21.3.3				
	Total	47.88	Sqm	948.00	45390
52	Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete :				
	9.74.1 125 mm 125x64x2.50 mm				
	GF				
		16	EACH	76.00	1216
53	Grading roof for receiving water proofing treatment with 22.14.1 C.C. 1:2:4 Cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size)				
	sor ino 22.14.1				
		2.50	cum	6569.00	16423
54	22.14.2 CM 1:3 Cement mortar 1:3 (1 cement : 3 sand)				
		2.50	cum	9308.00	23270
55	Providing and Laying China Mosaic Flooring on Roof Top terrace slab with 6mm thick white or coloured galzed broken tiles in mini. 25 x 25mm size in sqaure or rectangular shape & laying in Cement mortar 1:3 after mixing water proofing material in proportion prescribed by the manufacturer with neat cement slurry at top including filling the gaps with grey cement to have smooth surface finish. NON SOR				
		50.00	cum	594.00	29700
56	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
		13499	Kg	100	1349900
57	Providing corrugated G.S. sheet roofing including vertical/ curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete upto any pitch in horizontal/ vertical or curved surfaces) excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
		663	Sqm	450	298350
				Total Part B	10816266
				Total A+B	13348212

NAME OF WORK : ESTIMATE FOR CONSTRUCTION OF MAIN GATE					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part A:- UPTO PLINTH LEVEL					
Part 1					
1	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead. SOR IT NO 15.48				
	Total	1000.00	Sqm	13.00	13000
2	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge. SOR IT NO 15.48				
	Total	1000.00	Sqm	355.00	355000
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil SOR IT NO 2.7.1				
	Total	76.80	CUM	147.00	11290
4	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. 4.1.2.1 M-15 M-15 - Grade concrete SOR IT NO 4.1.2.1				
	Total	4.33	CUM	4403.00	19074
5	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. 5.27.1 Upto plinth All works upto plinth level.				
	Total	53.74	CUM	6100.00	327838

6	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1	53.74	Cum	110.00	5912
7	Centering and shuttering including strutting, propping etc. and removal of form work for : 4.3.1 Foundations, footings, bases for columns. SOR IT NO 4.3.1	3.04	SQM	169.00	514
8	Centering and shuttering including strutting, propping etc. and removal of form for : (SOR I/5.9 P/66) LOWER FLOOR 5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.	110.72	SQM	190.60	21103
9	Centering and shuttering including strutting, propping etc. and removal of form for :5.9.2 Walls (any thickness) in cluding attached pilasters butters, plinth beams and string courses etc. Upto plinth level PLINTH BEAM	37.44	SQM	219.00	8199
10	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding ire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:-1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786 SOR IT NO 5.16.6	8599.04	KG	80.00	687923
11	Filling available excavated earth Filling available excavated earth (excluding hard rock/Ordinary 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 sor it no 2.24 Total	46.55	CUM	95.00	4422
12	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm) SOR IT NO 2.27.2				

		14.40	CUM	331.00	4766
13	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.SOR IT NO 2.26 SOR IT NO 2.26				
	Total	2.88	CUM	672.00	1935
Part B:- SUPER STRUCTURE					
1	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design.. 5.27.2 Above plinth upto floor 5 All works above plinth level and upto floor five level				
	sor ino 5.27				
		117.42	CUM	6581.00	772741
2	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
	GF COLUMN				
		115.20	Sqm	521.20	60042
3	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns etc with ply Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	Roof Beam				
		486.00	Sqm	521.20	253303
4	Centering and shuttering including strutting, propping etc. and removal of form for :Suspende5.9.20 d floors, roofs, landings,alconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works) (sor item no. 5.9.20)				
	Ground Floor				
		250.00	Sqm	575.35	143838

5	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete. (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers.3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") 5.16.6 Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786 SOR it.no.5.16.6				
	(@160KG/CUM)	18787.20	KG	80.00	1502976
6	Stone work (machine cut edges) for wall lining etc. (vener work) up to 10 meter height backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 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 clamps which shall be paid for separately): White sand stone - exposed face fine dressed with rough backing 70 mm thick. SOR IT NO 7.21.3.1				
	Total	258.40	Sqm	1327.00	342897
7	Stone work plain ashlar masonry in domes, in super structure upto floor two level in cement mortar 1:3 (1 cement: 3 sand) including centering, shuttering and pointing with white cement mortar 1:2 (1 white cement: 2 marble dust) with an admixture of pigment matching the sand stone shade. Both face dressed. White sand stone. SOR IT NO 7.12.2.2				
	Total	5.40	Cum	39770.00	214758
8	Providing and fixing Stainless steel plate 304 grade of 1.50mm thick, including writing with Embossing of letters of required size including fixing at required placed with studs, screws and rawl plugs etc. compete as per direction of Engineer- in-Charge. SOR IT NO 27.4				
	Total	100.00	Sqm	13652.00	1365200

9	<p>Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel (ACP) Cladding, with open grooves for linear as well as curvilinear portions of the building, for all heights and all levels etc. including: a) Structural analysis and design and preparation of shopdrawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades. The aluminium composite panel cladding sheet shall be coil coated, with kynar 500 based PVDF / fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.</p> <p>c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washer to arrest the wind load movement, fasteners,</p>				
	<p>SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material and labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the 4 mm thick aluminium composite panel material consisting of 3 mm thick FR grade mineral core sandwiched between two aluminium sheets (each 0.5mm thick) SOR 8.7.1</p>				
	SOR IT NO 8.7.1				
	Total	200.00	Sqm	3800.00	760000
10	<p>Providing and fixing stone jali 40mm thick throughout in cement mortar 1:3 (1cement :3 sand) including pointing in white cement mortar 1:2 (1white cement: 2stone dust) with an admixture of pigment , matching the stone shade, jali slab without any chamfers etc. Red sand stone. SOR 7.31.1</p>				
	SOR IT NO 7.31.1				
	Total	112.50	Sqm	5797.00	652163
11	<p>Exposed Concrete is composed of a mix natural and mix elements portland cement, hardest earthen material, special additives, natural grains and special polymers to create external beauty, aesthetic value and heritage effects of concrete. thickness 4mm to 6mm. (payment for providing grooves shall be made separately) First coat:- Base coat Apply of Cementous ready mix coarse dark grey color material for making of groove, applied on smooth plaster surface with the thickness of 0.75mm to 1.5mm by trowel Second coat:- Apply of Cementous ready mix fine material, applied on plaster surface with the thickness of 2mm to 3mm by trowel. with or with out groves as per requirement and with 6mm groves (if grooves requires) with masking top of dark grey colour as per approved sample, for the complete satisfaction of architect/Engineer in charge. Third coat :- Protective clear top coat sealer (water based) applied by roller/sponge. SOR 13.94</p>				
	(SOR I/13.94)	225.00	Sqm	1586.00	356850

12	Indian ethnic art painting such as tribal Art Pithora or warli/Gond or Bhil Painting on any wall surface (interior or exterior) by using textured/smooth exterior/interior paint of approved brand or Manufacturer including preparation of surface and cost of all material labour and scaffolding etc. complete as per direction of Engineer-in-charge. SOR 13.93				
	(SOR I/13.93)				
		225.00	Sqm	1988.00	447300
13	Roto wall finishing Providing and Applying Roto Wall finishing system being a dispersion of inorganic fillers, calcite, pure silica, quartz and broad spectrum fungicides stabilized by an acrylic co-polymer, to be applied by means of customized trowels (one for incorporating material on base and spreading and other for finishing) in single coat with a coating thickness of 2.0-2.5mm on a cured smooth level plaster without keying, by the approved applicator of manufacturer, of the approved shade as per directions for usage all inclusive including primer coat on the base. SOR 13.81				
	(SOR I/13.81)				
		225.00	Sqm	324.00	72900
14	Applying two coats of sealer (special silicate water based water repellent protector) with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs on exterior stone façade and stone jali.At an approximate coverage of 50 to 70 Sq.f./Ltr. SOR 13.95				
	(SOR I/13.95)				
		387.60	Sqm	230.00	89148
15	Applying two coats of sealer (special silicate water based water repellent protector) with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs on exterior stone façade and stone jali.At an approximate coverage of 50 to 70 Sq.f./Ltr. SOR 13.95				
	(SOR I/13.95)				
		600.00	Sqm	230.00	138000
16	Providing and fixing stainless steel English (Capital) and Hindi letters in standard pattern bellow type made with 1.20 mm thick stainless steel (ASI Grade- 304) Depth of letter shall not be less than 30mm per letter per cm height 75.00 and rate includes welding/soldering of joints polishing, buffing and fixing on the wall, plate and beam surface at any height with necessary nut and bolts/fastener wherever is required Complete as per direction of Engineer-inCharge.SOR 27.8				
	(SOR 2/27.8)				
		300.00	per letter per cm height	75.00	22500

17	<p>Providing and applying flakes textured homogeneous wall finishing system consisting of a two component system of dry flakes (9.5kgs per/pack) made of a special grade of heat treated China clay with rigid homopolymer coated with fade resistant pigments and a 100% acrylic polymer Bonding agent (5kgs/pack) applied thickness of the coating being between 0.8-1.2mm, to be applied in single coat, on a cured, smooth level plaster surface without keying, as per the shades/ combinations approved, as per manufacturers directions for usage, to be applied by approved applicator of manufacturer, as per direction/ supervision of the engineers-in-charge inclusive of one coat of primer on the base at all heights etc all complete.SOR 13.79</p>				
	(SOR 1/13.79)				
		400.00	Sqm	650.00	260000
18	<p>Providing and fixing of Stone work in Bansi Pahadpur pink stone/ White stone/ Red stone/ Jaiselmer Yellow stone/ Teak stone/ basalt black and any type and color Best Quality Stone, as approved by Engineer-in-charge and consultant, with specific design, Size and as per drawings upto any height, thickness, size with necessary scaffolding / centering etc and as per requirement of items and proportion of design. Stone Carving depth 10mm to 50mm varies as per design including 3-D carving work, sunk and moulding works, grooves, cornices etc works as per drawings backing filled with grout of cement mortar 1:3(1 cement : 3 sand) minimum 12mm thick, including pointing in white cement mortar 1:2 (1 cement : 2 marble dust) with an admixture of pigment matching the stone shade, to be secured backing by means of Stainless Steel cramps/ anchor/ Pins/fastner of required size/ strength and shape, to anchoring the stone. Column/wall lining to the backing or securing adjacent stone in cement mortar 1:2(1 cement : 2 sand) including making necessary chases in stone and holes in wall/RCC where ever required including bonding agent/chemicals/epoxy etc. (k2/Tinex/ Roff Make) wherever required.</p>				
	<p>All fixing work should be executed as instructions of engineer in charge with providing facilities and cooperation needed to execute any other counterpart agencies works. The traditional pattern of fixing the stone work. For protection of stone, from weatheric action coat of protection layer shall be apply on whole stone surface area, Stone work should have coated in two or more coat of clear lacquar coat of pidilite / k2 / Nippon are equivalent. The process of coating should be followed: (i) cleaning of stone (ii) rubbing and polishing of stone (iii) first coat of clear lacquar and after drying of this coat ,second coat of clear lacquar shall be applied. All this coating of clear lacquar shall be done with spray paint machine. All work shall be done in satisfactory manner and as per instruction of engineer in charge and consultant. mode of mesurement as per drawing . SOR</p>				
	STONE WORK IN SELECTED STONE				
	NON SOR				
		15.25	CUM	126098.00	1923178

17	<p>AUTOMATIC HYDRAULIC BOLLARDS that works on the mechanism of Electric Hydraulic Drive having Dia of 219mm (Customizable), outside Bollard height of 600mm (Customizable) Overall Size 355*355*800mm, 304 Stainless steel or mild steel of thickness 6mm. Flange Size D355*10mm & Interior Cylinder Size D275*T3mm, It Requires Power Supply of 220V; 50Hz and Power Consumption of 370W NON SOR</p>				
	NON SOR				
		8.00	Each	200000.00	1600000
				TOTAL	1,24,38,770

NAME OF WORK : ESTIMATE FOR CONSTRUCTION & RENOVATION OF MANDIR					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part 1					
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil				
	SOR IT NO 2.7.1				
	Total	28.80	CUM	147.00	4234
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. 4.1.2.1 M-15 M-15 - Grade concrete				
	SOR IT NO 4.1.2.1				
	Total	1.30	CUM	4403.00	5706
3	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. 5.27.1 Upto plinth All works upto plinth level.				
		24.12	CUM	6100.00	147132
4	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1				
		24.12	Cum	110.00	2653
5	Centering and shuttering including strutting, propping etc. and removal of form work for : 4.3.1 Foundations, footings, bases for columns.				
	SOR IT NO 4.3.1				
		13.20	SQM	169.00	2231
6	Centering and shuttering including strutting, propping etc. and removal of form work for : (SOR I/5.9 P/66) LOWER FLOOR 5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.				
		123.60	SQM	190.60	23558

7	Centering and shuttering including strutting, propping etc. and removal of form for :5.9.2 Walls (any thickness) including attached pilasters buttresses, plinth beams and string courses etc. Upto plinth level				
	PLINTH BEAM				
		68.40	SQM	219.00	14980
8	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding iron all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786				
	SOR IT NO 5.16.6				
		3859.20	KG	80.00	308736
9	Filling available excavated earth Filling available excavated earth (excluding hard rock/Ordinary 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 sor it no 2.24				
	Total	22.10	CUM	95.00	2100
10	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete. With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm) SOR IT NO 2.27.2				
		36.00	CUM	331.00	11916
11	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.SOR IT NO 2.26 SOR IT NO 2.26				
	Total	7.20	CUM	672.00	4838

12	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design.. 5.27.2 Above plinth upto floor 5 All works above plinth level and upto floor five level				
	sor ino 5.27				
	COLUMN				
		19.80	CUM	6581.00	130304
13	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	SOR IT NO 5.9.21				
		43.20	Sqm	521.20	22516
14	Centering and shuttering including strutting, propping etc. and removal of form for 5.9.21 Lintels, beams, columns etc with ply Lintels, beams, columns, girders, bressumers and cantilevers with waterproof ply 12 mm thick (item to be executed with prior permission of S.E. in case of B&R works and from Additional Project Director in case of PIU works)				
	Ground Floor				
		64.80	Sqm	521.20	33774
15	Centering and shuttering including strutting, propping etc. and removal of form for :Suspende5.9.20 d floors, roofs, landings,alconies and Access platform. With water proof ply 12 mm thick. (item to be executed with prior permission of S.E. in case of B & R works and from Additional Project Director in case of PIU works) (sor item no. 5.9.20)				
	Ground Floor				
		81.00	CUM	575.35	46603
	First Floor				
16	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding wire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detaling IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete. (Note:- 1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge. 2. No extra payment shall be done for overlaps and/or couplers.3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") 5.16.6 Thermo-Mechanically Treated bars. (TMT/TMX) FE 500 or more conforming to IS 1786 SOR it.no.5.16.6				
	(@160KG/CUM)	3168.00	KG	80.00	253440

17	Repairs to plaster of thickness 12mm to 20mm in patches of area 2.5 sq. metres and underincluding cutting the patch inproper shape, raking out joints and preparing and plastering the surface of the walls completeincluding disposal of rubbish tothe dumping ground within 50metres lead : With cement mortar 1:4 (1 cement : 4 sand). SOR 14.1				
		1500.00	SQM	180.00	270000
18	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete to match existing surface i/c disposal of mulba/ rubbish as directed by Engineer- in-charge. For door/ window/ clerestory window. SOR 14.4				
		500.00	SQM	323.00	161500
19	Raking out joints in lime orcement mortar and preparing the surface for re-pointing or replastering including disposal of rubbish to the dumping ground within 50 metres lead. SOR 14.16				
		500	SQM	17	8500
20	Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge. SOR 14.73				
		500.00	SQM	355.00	177500
21	Removing loose plaster and Concrete work by low impact Hammer. Chipping, Removing, Carefully loose plaster and Concrete work by low impact Hammer, Breaker without damaging the structure as Instructed by Engineer-in-Charge. SOR 14.64				
		500.00	SQM	120.00	60000
22	Coursed rubble masonry with hard stone (first or second sort) in superstructure above plinth level and upto floor two level. 1st Sort. Masonry work (first sort) in cement mortar 1:6 (1 cement : 6 sand). SOR 7.7.1				
		50.00	CUM	4803.00	240150
23	Providing for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections. SOR 5.24				
	Preparation of Grooves SOR 5.24.1	500.00	RM	18.50	9250
	Preparation of Drip Course SOR 5.24.2	500.00	RM	30.00	15000
24	Stone work (machine cut edges)for wall lining etc. (vener work) up to 10 meter height backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 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 tothe backing by means of clamps which shall be paid for separately): Red sand stone - exposed face fine dressed with rough backing. 50 mm thick. SOR 7.21.1.3				
		700.00	SQM	1276.00	893200
25	Stone tile work with 8mm thick mirror polished and machine cut edge for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 sand), including pointing in white cement with an admixture of pigment to match the stone shade. Granite stone of any colour and shade. SOR 7.36.1				
		500.00	SQM	1524.00	762000

26	Providing and fixing copper pins 7.5 cm long 6 mm diameter for securing adjacent stones in stone wall lining in cement mortar 1:2 (1 cement : 2 sand) including making the necessary chases. SOR 7.25				
		10000.00	EACH	35.00	350000
27	Providing and laying gang saw cut 30 mm thick, mirror polished pre moulded and pre polished machine cut granite stone of required size and shape of approved shade, colour and texture in footpath, flooring in road side plazas and similar locations, laid over 20mm thick base of cement mortar 1:4 (1cement: 4 sand) including grouting the joints with white cement mixed with matching pigment, epoxy touch ups etc. complete as per direction of Engineer-in-Charge. (area of slab more than 0.50 sqm). Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitter SOR 11.31.1				
		50.00	SQM	3616.00	180800
28	Granite stone work 18mm thick of any colour in riser of steps, skirting, dado and pillars laid on 12 mm average thick cement mortar 1:3 (1 cement:3 sand) and jointed with white cement slurry mixed with pigment to match the shade of slab. SOR 11.34				
		100.00	SQM	3413.00	341300
29	Stone work (machine cut edges) for wall lining etc. (vener work) up to 10 meter height backing filled with a grout of 12mm thick cement mortar 1:3 (1 cement : 3 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 clamps which shall be paid for separately): White sand stone - exposed face fine dressed with rough backing 70 mm thick.				
	SOR IT NO 7.21.3.1				
		48.00			
	Total	48.00	Sqm	1327.00	63696
30	Stone work plain ashlar masonry in domes, in super structure upto floor two level in cement mortar 1:3 (1 cement: 3 sand) including centering, shuttering and pointing with white cement mortar 1:2 (1 white cement: 2 marble dust) with an admixture of pigment matching the sand stone shade. Both face dressed. White sand stone.				
	SOR IT NO 7.12.2.2				
		28.80	Cum	39770.00	1145376
	Total	28.80	Cum	39770.00	1145376
31	Marble stone flooring with 18 mm thick marble stone (sample of marble shall be approved by Engineer-in-charge) laid over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 sand and grey cement slurry, joints treated with white cement mixed with pigment to match colour of stone including rubbing and polishing complete with : (area of slabs over 0.5 sqm) Makrana white second quality.				
	SOR IT NO 11.19.1				

	Total	36.00	Sqm	3051.00	109836
32	Providing and laying gang saw cut 18 mm thick, mirror polished premoulded (wherever required) and pre polished machine cut granite stonework in flooring of required size shape of approved shade, color and texture in flooring laid over 20 mm thick base of cement mortar 1:4 (1 Cement: 4 sand) including grouting the joints with white cement mixed with matching pigments epoxy touch ups etc. complete as per direction of Engineer-in-Charge. :				
	11.29.2 SArea of slab upto 0.50 sqm 11.29.2.1 Granite (fine grained) Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitte				
	SOR INO 11.29.1				
	Mandir Flooring	400.00	Sqm	2705.00	1082000
33	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having water absorption less than 0.05% and conforming to IS: 15622 of approved make in all colours and shades for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 sand) in all shapes and patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge. SOR 11.57				
	SOR IT NO 11.57				
	Total	100.00	Sqm	3051.00	305100
34	Indian ethnic art painting such as tribal Art Pithora or warli/Gond or Bhil Painting on any wall surface (interior or exterior) by using textured/smooth exterior/interior paint of approved brand or Manufacturer including preparation of surface and cost of all material labour and scaffolding etc. complete as per direction of Engineer-in-charge. SOR 13.93 (SOR I/13.93)				
	QTY SAME AS 15 MM PLASTER	37.50	Sqm	1988.00	74550
34	Cleaning of exposed concrete surface of sticking material including loose and foreign material by sand blasting with coarse sand followed by and including cleaning with oil free air blast as per direction of Engineer in charge. SOR 14.85 (SOR I/14.85)				
		3000.00	Sqm	242.00	726000
35	Item :-Extra for CNC work as perrequired design an pattern on natural stone surface i.e. Granite / Marble / Kota , Sand Stone etc. All work should be done as per the drawing, design, pattern, specifications and instructions of Engineer in Charge. Measurement for billing purpose boundary out to out in Length and breadth of CNC work area only. Non SOR				
		274.50	Sqm	375.00	102938
36	Providing and applying acrylic water based putty used on alkali resistant Primer in two coats including sand papering for making the surface smooth for applying any or vinyl paints including all cost of material, at any floor and height and labour etc complete. Non SOR				
		246.00	Sqm	90.00	22140
		TOTAL Part A 81,15,556			

NAME OF WORK : ESTIMATE FOR CONSTRUCTION OF					
QUEING BLOCK					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
Part A:- UPTO PLINTH LEVEL					
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead up to 50m and lift up to 1.5m, disposed earth to be levelled and neatly dressed. (No extra lift is payable if work is done by mechanical means) All kinds of soil				
	SOR IT NO 2.6				
		291.60	CUM	147.00	42865
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : With 40mm nominal size graded stone aggregate. With 40 mm metal With 40mm nominal size graded stone aggregate. 4.1.2.1 M-15 M-15 - Grade concrete				
	SOR IT NO 4.1.2.1				
	Total	13.50	CUM	4403.00	59441
3	Providing and laying in position machine batched, machine mixed cement concrete (BMC) of M-20 grade for reinforced cement concrete work using cement content as per approved mix design including use of admixtures in recommended proportions as per IS 9103 to accelerate/retard setting, improve workability of concrete without impairing strength and durability as per direction of Engineer-in charge and pumping of concrete to site of laying and finishing but excluding the cost of centering, shuttering, and reinforcement. (Note: - Minimum cement content is 330 kg/cum) and no extra payment for extra cement used as per mix design. 5.27.1 Upto plinth All works upto plinth level.				
		278.28	CUM	6100.00	1697508
4	Extra for providing richer mixes of BMC/RMC design mix as per item no 5.27&5.30 up to plinth level and at all floor levels. (No extra payment for using extra cement as per requirement of mix design.) Providing M-25 grade concrete instead of M- 20 grade. (Note : minimum cement content is @ 330 kg/cum) SOR 5.28.1				
		278.28	Cum	110.00	30611
5	Centering and shuttering including strutting, propping etc. and removal of form work for : 4.3.1 Foundations, footings, bases for columns.				
	SOR IT NO 4.3.1				
		31.20	SQM	169.00	5273
6	Centering and shuttering including strutting, propping etc. and removal of form for : (SOR I/5.9 P/66)				
	LOWER FLOOR				
	5.9.1 Foundations, footings, bases of columns, etc. for concrete up to plinth level.				
		316.80	SQM	190.60	60382

7	Centering and shuttering including strutting, propping etc. and removal of form for :5.9.2 Walls (any thickness) in cluding attached pilasters butter esses, plinth beams and string courses etc. Upto plinth level PLINTH BEAM				
		676.00	SQM	219.00	148044
8	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding including cost of binding ire all wastages and overlaps, couplers (overlaps shall be provided as per requirement of IS 13920 for ductile detailing IS 456 RCC Design & SP 34 Reinforcement detailing) etc. complete . (Note:-1. Spacer bars (chairs) shall be paid separately as shown in the drawing and as per direction of engineer in charge.2. No extra payment shall be done for overlaps and/or couplers. 3.Couplers shall be conforming to IS code on "Reinforcement Couplers for Mechanical Splices of Bars for Concrete Reinforcement - Specification") Thermo-Mechanically Treated bars.(TMT/TMX) FE 500 or more conforming to IS 1786 SOR IT NO 5.16.6				
		30610.80	KG	80.00	2448864
9	Filling available excavated earth Filling available excavated earth (excluding hard rock/Ordinary 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 sor it no 2.24				
	Total	203.82	CUM	95.00	19363
10	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete.With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be provided shall be 30cm) SOR IT NO 2.27.2				
		1575.00	CUM	331.00	521325
11	Supplying and filling in plinth with crusher stone dust / coarse sand under floors including, watering, ramming and compacting in layers not exceeding 20cm in depth and dressing complete Note: - Maximum thickness of this layer shall be 20 cm.SOR IT NO 2.26 SOR IT NO 2.26 In Plinth				
	Total	315.00			
		315.00	CUM	672.00	211680

12	Steel work in built up M.S. tubular section (round, square or rectangular hollow tubes etc.) trusses/frame work etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes SOR 10.14.1				
	SOR IT NO 10.14.1				
	Total	10902.93	Kg	117.00	1275642
13	Providing and fixing in position roof tile under lay using 12mm thick(minimum) Moisture/fire Resistance heavy duty fibre cement board(High Pressure Steam Cured) Type A,Category 4 conforming to IS 14862:2000, fixed on Steel frame work of 610mmx610mm or 610mmx1220mm grid by counter sunk stainless screw @ 300mm C/C all complete as per the drawings. The boards are to be fixed on the frame work in staggered manner keeping a uniform gap of 2mm.Finally, the roof tile like Shingles/Mangalorian Tiles etc may be laid on the board substrate by sealing the joints properly with filler material or sealant to ensure no leakage through joints. All complete as per drawings, specification and as per direction of Engineer-in-Charge. SOR 12.41				
	SOR IT NO 12.41				
	Total	1575.00	Sqm	1503.00	2367225
14	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 ltr/sqm. by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ltr and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under: Joint strength in longitudinal and transverse direction at 23°C as 650/450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto - 2°C when tested in accordance with ASTM, D 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane: (with 5 years service guarantee)				
	SOR IT NO 22.20				
	Total	1575.00	Sqm	510.00	803250
15	Providing and applying of 2.7mm per layer - total thickness 5.4mm of High Definition, Laminated Asphalt based roofing shingles (having 50 yrs. product warranty and wt of 12.00 kg per sqm) with the help of torch-on method etc all complete as per specs.				
	Non SOR				
	Total	1575.00	Sqm	1350.00	2126250
16	Providing and covering the entire ridges with SBS bitumen modified of Technicol , high end, factory made ridge called HIP and Ridge with the help of nailing method				
	Non SOR				
	Total	320.00	Rm	550.00	176000

17	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade: Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture. SOR 13.65				
	SOR IT NO 13.65				
	Total	158.00	sqm	80.00	12640
18	Providing and laying gang saw cut 18 mm thick, mirror polished premoulded (wherever required) and pre polished machine cut granite stonework in flooring of required size shape of approved shade, color and texture in flooring laid over 20 mm thick base of cement mortar 1:4 (1 Cement: 4 sand) including grouting the joints with white cement mixed with matching pigments epoxy touch ups etc. complete as per direction of Engineer-in-Charge. : 11.29.2 SArea of slab upto 0.50 sqm 11.29.2.1 Granite (fine grained) Fine grained granite dark Black/dark Red/ White or equivalent with self design/ pattern/crystals of other colors of glitte				
	SOR INO 11.29.1				
		1575.00	Sqm	2705.00	4260375
TOTAL					1,62,66,738

NAME OF WORK : ESTIMATE FOR DEVELOPMENT					
WORKS IN OPEN AREA					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in over areas (exceeding 30cm in depth 1.50m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead upto 50m and lift upto 1.5 m, disposal earth to be levelled and neatly dressed (no extra lift is payable if work is done by mechanical means)				
		1050.00	cum	147.00	154350
2	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete. With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer to be 20cm)				
	road sor no 2.27.1	1050.00	Cum	393.00	412650.00
3	Granular Sub-base with Close Graded Material (Table:- 400-1) Plant Mix Method with Mechanically crushed stone only (Construction of granular sub-base by providing close graded Material, mixing in a mechanical mix plant at OMC, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per clause 401) for grading-III Material				
	road sor ino 4.1.iii	525.00	Cum	1809.00	949725.00
4	Providing and fixing 10x10x7.50 cm Granite stone block hand cut and chisel dressed on top, for paving in floors, drains etc. laid over 20mm thick base mortar 1:4 (1cement:4 sand) with joints 10mm wide filled with same mortar mixed with matching pigment including ruled pointing etc. complete as per direction of engineer in charge				
	sor ino 11.35	700.00	Sqm	2765.00	1935500.00

5	Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450 mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) including necessary excavation of size 250x250x450mm deep for the same in bitumen/concrete pavement at specified				
	sor ino 4.19	50.00	Each	485.00	24250.00
5	Precasting and placing in position 125 mm dia Bollards 600 mm high of required shape including providing M.S. Pipe Sleeve 50 mm dia 300 mm long in the Bollard and M.S. Pipes 40 mm dia and 450 mm long with 150x150x6mm M.S. plate welded at bottom and embedded 150mm in cement concrete 1:3:6 (1 Cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) including necessary excavation of size 250x250x450mm deep for the same in bitumen/concrete pavement at specified				
	sor ino 4.19	50.00	Each	485.00	24250.00
5	Supply, fixing & testing of approved make of LED integral type bollard cylindrical/square shape housing cast aluminium dome shape top cover fixed with cylindrical shape acrylic cover having base plate with holes for direct mounting complete with all accessories including preparation of foundation, fixing, connection etc. as required. LED of 1 to 3 Watt each assembled on single MCPCB, system lumens output with efficacy>90 lm/W. luminaire having color temp upto 6500K & 50000 burning hrs. life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire, comprises of driver PF> 0.95 & surge protection 10KV. IP65 protection. Submission LM 79- 08/IS16106 (2012), IEC60598, IEC61347i/c connection wire,				
	sor ino 4.19				
	8-10W cylindrical shape Bollard LED 8-10 Watt cylindrical shape height > 700mm, color temp 3000-6000k	20.00	Each	4614.00	92280.00
	8-10W mushroom shape Bollard LED 8-10 Watt mushroom shape height > 600mm, color temp 3000-6000k	20.00	Each	4344.00	86880.00
	Total Cost Of Parking				3679885.00

NAME OF WORK :		ESTIMATE FOR PARKING			
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in over areas (exceeding 30cm in depth 1.50m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead upto 50m and lift upto 1.5 m, disposal earth to be levelled and neatly dressed (no extra lift is payable if work is done by mechanical means) road sor ino 22 l. 2.6	147.00	Cum	141.00	20727.00
2	Supplying and filling in plinth under floors including watering ramming consolidating in layers not exceeding 20cm in depth and dressing complete. With hard muram having CBR >12 % at under floors including watering, ramming and compacting (minimum compaction 95% of MDD) in layers not exceeding 20cm in thickness and dressing complete. (Note:- maximum thickness of this layer shall not be 30cm) road sor ino 2.27.1	1200.00	Cum	393.00	471600.00
3	Granular Sub-base with Well Graded Material (CBR>30 or more) (Table:- 400-1 & Table 400-2) Construction of granular sub-base by providing well graded material like natural sand crushed gravel or crushed stone having CBR >30, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator or plant mix method at OMC, and compacting with vibratory rollers of 80 to 100 kN static weight to achieve the desired density, road sor ino 4.1	600.00	Cum	934.00	560400.00
4	Cement Concrete Pavement Construction of unreinforced, dowel jointed, plain cement concrete pavement M-30 grade concrete over a prepared sub base with cement, coarse and fine aggregate conforming to IS 383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a batching and mixing plant as per approved mix design, transported to site, laid with a fixed form or slip form paver, spread, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, debonding strip, admixtures as approved, curing compound, finishing to lines and grades as per drawing as per IRC 15 2011 and as per relevant clauses of section 602 of specifications complete but excluding cost of steel in dowel bar and tie rods road sor ino 6.4	800.00	Cum	5685.00	4548000.00
5	add extra in item no. 6.3 & 6.7 above the cost of steel in dowel bar and tie bar rod etc required as per design 12 dia tor rods road sor ino. 6.12	10.00	MT	68297.0	682970.00

6	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness and size/shape, made by table vibratory method using PU mould, laid in required colour and pattern over 50mm thick compacted bed of stone dust, compacting and proper embedding/laying of inter locking paver blocks into the bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand including locking edges with M 15 cement concrete in footpath, light traffic parking etc. complete as per direction of Engineer-in-Charge. ii) 80mm thick C.C. paver block of M-35 grade with approved colour, design and pattern.				
	road sor ino 6.14	100.00	Sqm	748.00	74800.00
7	Providing of Rotomoulded circular planters of different sizes. sor ino 28.26				
	Upper dia 30cm and height 24cm	10.00	Each	405.00	4050.00
	Upper dia 40cm and height 31cm	10.00	Each	675.00	6750.00
	Upper dia 50cm and height 37cm	10.00	Each	1147.00	11470.00
	Upper dia 60cm and height 47cm	10.00	Each	1665.00	16650.00
	Upper dia 70cm and height 55cm	10.00	Each	2700.00	27000.00
	Upper dia 80cm and height 62cm	10.00	Each	3510.00	35100.00
	Upper dia 90cm and height 69cm	10.00	Each	4552.00	45520.00
	Upper dia 100cm and height 74cm	10.00	Each	5805.00	58050.00
	Upper dia 120cm and height 95cm	10.00	Each	8910.00	89100.00
8	Providing of rotomoulded planters of square shape of different sizes. sor ino 28.27				
	40cm x 40 cm x 37cm	10.00	Each	1260.00	12600.00
	50cm x 50cm x 45cm	10.00	Each	675.00	6750.00
	60cm x 60cm x 53cm	10.00	Each	1147.00	11470.00
	70cm x 70cm x 65cm	10.00	Each	1665.00	16650.00
9	Providing circular Asbestos cement pots of specified size, stacking in required rows a height all complete as per direction of Engineer-inCharge sor ino 28.28				
	Upper dia: 25cm, Lower dia: 20cm, Height:25cm	10.00	Each	108.00	1080.00
	Upper dia: 30cm, Lower dia: 23cm, Height: 30cm	10.00	Each	144.00	1440.00
	Upper dia: 35cm, Lower dia: 26cm, Height:35cm	10.00	Each	270.00	2700.00
	Upper dia: 40cm, Lower dia: 30cm, Height:40cm	10.00	Each	360.00	3600.00
10	Providing and fixing of stone planter (bench) made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1200mm, width 500mm, leg height 500 mm road sor ino 28.36				
		147.00	Each	6200.00	911400.00
	Total Cost Of Parking				7619877.00

NAME OF WORK : ESTIMATE FOR CONSTRUCTION OF BOUNDARY WALL					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in over areas (exceeding 30cm in depth 1.50m in width as well as 10 sqm on plan) including dressing of sides and ramming of bottom disposal of excavated earth, lead upto 50m and lift upto 1.5 m, disposal earth to be levelled and neatly dressed (no extra lift is payable if work is done by mechanical means) SOR P. 22 I. 2.6				
		19.44	cum	147.00	2858
2	Centering and shuttering including strutting, propping etc. and removal of form work for : Upto plinth: Foundations, footings, bases for columns, plinth beams, curtain walls, columns below plinth. SOR 4.3.1				
		2.40	Sqm	169.00	406
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :4.1.2.3 M 7.5 SOR P. 45 I. 4.1.2.3				
		0.90			
	PL.BEAM	0.30			
		1.20	Cum	3474.00	4169
4	Centering and shuttering including strutting, propping etc. and removal of form for : sor p 66 i/5.9.1 Foundations, footings, bases of columns, etc. for mass concrete up to plinth level. SOR I.No. 5.9.1				
		10.72	Sqm	190.60	2043
5	Walls (any thickness) including attached pilasters buttersesses, plinth beams and string courses etc. up to plinth level. SOR I.No. 5.9.2				
	plinth beam	6.00	sqm	219.00	1314
6	Providing and laying in position specified grade of reinforced cement concrete (with 20mm nominal size graded stone aggregate) excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : M 20 Grade concrete SOR I.No. 5.1.1				
		3.59	Cum	6153.00	22077
7	Centering and shuttering including strutting, propping etc. and removal of form for: Columns, P i l l a s, Piers, Abutments, Posts and Struts. SOR I. No. 5.9.6				
		10.20	Sqm	471.20	4806

8	Reinforced cement concrete work (with 20mm nominal size graded stone aggregate) in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, posts and struts etc. above plinth level and up to floor two level excluding cost of centering, shuttering, finishing and reinforcement : SOR I. No. 5.3.1				
	Column Above Cirtain Wall	0.36	cum	6231.00	2243
9	Reinforced cement concrete work (with 20 mm nominal size graded stone aggregate) in beams, suspended floors, roofs having slope of any degree landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral staircases above plinth level and upto floor two level excluding the cost of centering, shuttering, finishing and reinforcement in concrete grade. SOR 5.3.1				
	Top Beam	0.30	Cum	6541.00	1962
	100 Kg/ Cum of RCC	424.80	Kg	80.00	33984
10	Filling availabel excavated earth (excluding rock) in trenches plinth sides of foundations etc.in layers not exceeding 20 cm in Depth.consolidating each deposited layer by ramming and watering lead up to 50 m and lift upto 1.5m SOR I. NO. 2.24				
		14.65	M3	95.00	1392
11	Brick work with fly ash lime bricks (FALG Bricks) conforming to IS:12894-2002, in super structure above plinth level up to floor II level in :6.7.2 having 75 kg / cm2 average compressive strength SOR IT NO 6.7.2.2				
		2.76	Cum	5049.00	13935

12	15 mm cement plaster on the rough side of single or half brick wall of mix : 13.2.2 1:6 (1 cement: 6 sand) SOR I.No. 13.2.2				
		47.00	Sqm	168.00	7896
13	Finishing walls by only mechanical or manual means with textured exterior paint of required shade: New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm. SOR I.No. 13.51				
		47.00	Sqm	132.00	6204
14	Providing and fixing chicken mesh as per ISI specification and in the required width with 50mm long Bombay nails on vertical and horizontal junctions of RCC and brick wall including scaffolding and all lead and lift etc. complete before plastering up to 10 meter height SOR I. No. 13.27.1				
		2.28	Sqm	62.00	141
15	Forming groove of uniform size in the top layer of washed stone grit plaster as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to the edges of panels and finishing the groove complete as per specifications and direction of the Engineer-in-charge :13.20 .1 20 mm wide and 15 mm deep groove. SOR I. NO. 13.20				
		27.60	RM	24.00	662
16	Angle iron post and strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete. (cost of earth work in excavation and concrete work in foundation to be paid separately) SOR I. No. 10.29.2				
		12.80	KG	67.00	858
17	Fencing with barbed G.I. wire angle iron post placed fitted to at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontal lines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum) between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concrete work to be paid for separately):- Payment to be made per metre cost of total length of barbed wire used. SOR 10.32				
	Chain Link	30.00	M	17.00	510.00
Total For 10 m				107460.52	

Total For 1 meter Length	10746.05
For 300.00 meter Length	3223815

		NAME OF WORK :	ESTIMATE FOR LANDSCAPING			
S. No.	SOR I.	Particular	Quantity	Unit	Rate	Amount
1	28.2	Supplying and stacking of good earth specific useful for plantation at site including royalty if any and carriage (earth measured in stacks will be reduced by 20% for payment)				
		(earth measured in stacks will be reduced by 20% for payment)	112	CUM	511.00	57232
2	28.3	Supplying and stacking sludge at site including royalty and carriage (sludge measured in stacks will be reduced by 8% for payment)				
		(sludge measured in stacks will be reduced by 8% for payment)	103.04	CUM	643.00	66255
3	28.4	Supplying and stacking at site dump manure from approved source, including carriage(manure measured in stacks will be reduced by 8% for payment) :				
		(sludge measured in stacks will be reduced by 8% for payment)	103.04	CUM	734.00	75631
4	28.9	Mixing earth and sludge or manure in the required proportion specified or directed by the Engineer-in-charge.				
			140.00	CUM	11.00	1540
5	28.10.6	Providing and Laying Mexican/Zyosia carpet grass Turf with earth 50mm to 60mm thickness on existing ground prepared with proper level and ramming with tools wooden (Durmuth) and then rolling the surface with light roller make the surface smoothen and light watering with sprinkler and maintenance for 30 days or more till the grass establishes properly, as per direction of Engineer-in-Charge.				
			700.00	SQM	310.00	217000
6	28.14	Digging holes in ordinary soil and refilling the same with the excavated earth mixed with manure or sludge in the ratio of 2:1 by volume (2 parts of stacked volume of earth after reduction by 20% : 1 part of stacked volume of manure after reduction by 8%) flooding with water, dressing including removal of rubbish and surplus earth, if any with all leads and lifts (cost of manure, sludge or extra good earth if needed to be paid for separately) :				
	28.14.2	Holes 60 cm dia, and 60 cm deep. each	50.00	EACH	61.00	3050
7	28.15	Providing and planting different variety of plants of approved quality and sizes as mentioned including making pits of required size at site, refilled with B.C. Soil mixture manuring and pesticide etc. complete (to be paid separately) including watering and 90 days maintenance from the date of final bill as per direction of engineer in charge complete in all respect (B.C. Mixture paid separately).				

8	28.15.3	Alpinia Verigated, Alternanthera species,Aspyragus Myerri, Aspyragus Springenii,Aspidistra, Canna (regular, Dwarf), Chlorodendron Inermii, Chlorophytum (Green), Chlorophytum verigated, Coffea Chinensis, Dianella Verigated, Durranta (Goldiana, Green, Verigated), Euphorbia Milli hybrid, Ipomea (Golden leaves), Iresine herbstii, Juniper Prostata, Juniper Africana,Ophiopogon plant, Ophiopogon jaburan,Portulacaria Afra (jade Plant), Schefflera Green, Schefflera verigated, Setcreasea Purpurea, Syngonium (Butterfly) species, Syngonium miniature, Syngonium Dwarf, Syngonium variegated, Tradescantia, Wadelia Trilobata, Zebrina Tradescantia, Pendanas,Spider Lily Black, Spider Lily verigated,Aclypha (Red, Green,Mini), Lantana (Red,Yellow, Purple, White, verigated				
			50.00	EACH	50.00	2500
9	23.15.4	Any of one from Alyssum, Anemone,Antirrhinium Hybrid, Aster Hybrid, Begonia and its different varieties,alendula,Carnation,Coleus, Daisy, Dianthus, Fressia, Gazania, Impatiens,Kalanchoe, Marigold Inca, Missam branthemum, Nemasia, Nasturtium,Ornamental Kale, Pansy Hybrid Sakata, Petunia Hybrids such as Bravo, Star and Picotee, Salvia, Stock, Stock, Verbena				
			50.00	EACH	42.00	2100
10	28.15.5	Any of one from Celosia, Caladium Hybrid,Cockscomb, Cosmos, Gaillardia, Gomphorena,Kochchea, Portulacca, Sunflower Hybrid,Sunflower Single, Tapiocca Variegat				
			50.00	EACH	42.00	2100
11	28.16	Half brick circular tree guard in bricks, internal diameter 1.25 metre and height 1.2 metre above ground and 0 .20 m below ground, bottom two courses laid dry and top three courses in cement mortar 1:6 (1 cement : 6 sand) and the intermediate courses being in dry honey comb masonry as per design complete:				
			50.00	EACH	800.00	40000

12	28.22	Providing and fixing M. S. tree guard 50 cm square in plan, height 1.40 metre above ground level and 0.50 metre below ground level. The vertical members shall consist of four nos. of angle iron of size 25x25x5 mm 1.9 long, one at Each corner and 8 nos. flat iron of size 25x5 mm 1.4 long. The vertical members shall be welded to 4 nos. 25x6 mm M. S. flats placed horizontally around the vertical member of the cage. One name plate of 1 mm thick M.S. sheet of size 250x100 mm shall be welded to the tree guard near the middle height and lettered PWD/ any other approved name. The tree guard shall be fixed to the ground by making suitable holes and by embedding four corners leg in the ground, including refilling the earth, compaction etc. complete. The tree guard shall be painted with two coats of paint of approved brand and manufacture over a coat of primer, complete in all respect.				
			50.00	EACH	2245.00	112250
13	28.35	Providing and fixing of 3 seater stone bench made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1500mm, width 600mm, legs height 500 mm,back support height 500mm.				
			30.00	EACH	9700.00	291000
14	28.17	Edging with bricks laid dry length wise, including required excavation, refilling, consolidating with hand packing and spreading surplus earth neatly within a lead of 50 m:				
	28.17.1	Common burnt clay modular bricks	300.00	RM	31.00	9300
15	28.37	Providing and fixing of stone table made of 75mm thick stone slab finished by different numbers of ambry stone and two coats of 124 no sealer coat to prevent from weather including fixing on a pedestal (cost of pedestal to be paid separately)etc. complete as per direction of engineer in charge. Size: length 1000mm, width 600mm, legs height 750 mm.				
			10	EACH	7900.00	79000

16	26.19	Quartzoid bulb type sprinklers Providing, fixing testing and commissioning of 15mm size quartzoid bulb type sprinklers, set to operate at 68/79 degree Centigrade. Pendant type/upright type/side wall type with required accessories complete as directed by Engineer-in- Charge.				
			40.00	EACH	477.00	19080
17	26.20	Control valve of cast iron body Providing, fixing, testing and commissioning of installation control valve of Cast iron body and brass/bronze working parts comprising of water motor alarm, bronze seatclapper, and clapper arm, hydraulically driven mechanical going bell to sound continuous alarm when the Wet riser/Sprinkler system activates, pressure gauges, emergency, releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, MS pipe of required size flanges, orifice plate, gasket etc. of size 150 mm dia and obtaining NOC from local bodies etc required.				
			2.00	EACH	42500.00	85000
18	11.72.2	Providing and laying factory made coloured chamfered edge Cement Concrete paver blocks of required strength, thickness and size/shape, made by table vibratory method using PU mould, laid in required colour and pattern over 50mm thick compacted bed of stone dust, compacting and proper embedding/laying of inter locking paver blocks into the bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand including locking edges with M 15 cement concrete in footpath, parks, lawns, drive ways or light traffic parking etc. complete as per manufacturer's specifications and direction of Engineer-in-Charge. 60mm thick C.C. paver block of M-35 grade with approved colour, design and pattern. SOR 11.72.2				
			100.00		556.00	55600
			TOTAL			1118638

NAME OF WORK : ESTIMATE FOR EXTERNAL SANITARY, WATER SUPPLY AND GARBAGE COLLECTOR					
NO	PARTICULARS OF ITEM	QTY.	UNIT	RATE	AMOUNT
1	Providing and laying below ground unplasticised PVC pipe to with stand working pressure of 4 kg/cm ² soild waste pipes confirming to IS:13592 and IS:4985 including jointing with seal ring confirming to IS :5282 leaving 10mm gap for thermal expansion all necessary fittings etc. complete. Excavation to be paid seperately. SOR I.No.19.4.1,2,3				
	19.4.1 110 mm diameter OD	150.00	Rm	234.00	35100.00
	19.4.2 160 mm diameter OD	150.00	Rm	477.00	71550.00
2	Providing and laying cement concrete 1:3:6 (1 cement : 3 sand : 6 graded stone aggregate 20 mm nominal size) all-round PVC. pipes including bed concrete as per standard design:				
	SOR I.No.19.5 P341				
	19.5.1 110 mm diameter PVC. pipe	150.00	Rm	576.00	86400.00
	19.5.2 160 mm diameter PVC. Pipe	150.00	Rm	704.00	105600.00
3	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 sand) R.C.C. top slab with Cement Concrete 1:2:4 mix (1 cement : 2 sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design 19.9.1:Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :19.9.1.1With well burnt bricks				

	SOR P.No. 342 I.No. 19.9.1	18.00	each	7997.00	143946.00
4	Extra for depth for manholes				
	19.10.1.1 With well burnt bricks	8.00	RM	6176.00	49408.00
5	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement ,trenching ,refilling & testing of joints complete as per direction of Engineer in Charge.External work				
	SOR I.No. 18.9. P. 275				
	18.9.6 50 mm dia. nominal bore	40.00	Rm	498.00	19920.00
	18.9.5 40mm dia. nominal bore	50.00	Rm	324.00	16200.00
	SOR I.No. 18.9. P. 275				
6	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :: SOR I.No. 18.12. P. 281				
	SOR I.No. 18.12.1.3 40 mm nominal bore	5.00	Each	677.00	3385.00
	SOR I.No. 18.32.1.4 50 mm nominal bore	5.00	Each	976.00	4880.00
7	Providing and fixing square-mouth S.W. gully trap class SP1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : 19.7.2.1 With well burnt bricks S.O.R.P 294/It.No.19.7.2.1				
		15.00	Each	1803.00	27045.00
8	Providing and laying floating garbage containment boom having 200mm Float and 600mm skirt including ¼" / 5/16" / 3/8" Galvanized Chain Ballast, 22oz. PVC or 24oz. PVC Plus fabric in orange or yellow, Aluminum quick latch or slide couplers are recommended and top tension cable as per engineer in charge NON SOR				
		120.00	Rm	9200.00	1104000.00
				Total	1667434.00

PROPOSED AIR CONDITIONING WORKS

S.N	Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount (in Rs)
	1	2	3	4	5	6	7
1	46.11.2		SPLIT AC (inverter model) :- Supply, installation, testing and commissioning of Split type wall mounted air conditioning unit of following capacity including indoor, outdoor unit fitted with inverter based rotary compressor, copper condenser and first charge refrigerant R410A. The condensing unit working range should be capable for providing cooling between +/-5 deg. C to 50 deg. C & heating within 0 deg. C to 15 deg. C including connection of copper pipe of required size upto 3 mtr., insulation, cordless remote control, auto air swing louvers, wall stand for outdoor unit, connection copper lead wire, condensed water outlet pipe 2 mtr. complete etc as required. Outdoor/indoor units should be of same make (brand).				
1.3		46.11.2.3	1.5 TR star rating 3 star	Each	46000.00	0	0
1.4		46.11.2.4	1.5 TR star rating 5 star	Each	52800.00	2	105600
1.5		46.11.2.5	1.8/2 TR star rating 3 star	Each	59500.00	0	0
1.6		46.11.2.6	1.8/2 TR star rating 5 star	Each	67800.00	4	271200
2	46.30		Copper piping: - Supply, installation, testing and commissioning of interconnecting copper refrigerant pipe work (19mm/13mm thick) duly insulated with elastomeric nitrile rubber type tubular insulation between indoor & outdoor units as per specifications. And exposed piping should be wrapped with glass woven cloth and lag coating for vapour barrier and weather protection. Joints shall be covered with nitrile rubber tape of 3 mm thick complete as per specification.				
2.1		46.30.9	15.9 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	874.00	32	27968
2.3		46.30.10	12.7 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	689.00	28	19292
2.4		46.30.11	9.5 mm O.D. wall thickness \geq 0.8mm (insulation – 13 mm thick)	Rmt	588.00	24	14112
3	46.31		Drain piping :- Providing and fixing of CPVC, 6Kg/cm ² drain water piping with fittings, support and insulated with 6 mm thick closed cell elastomeric nitrile rubber insulation complete as per specification.				
3.1		46.31.1	20 mm dia ID	Rmt	171.00	16	2736
3.2		46.31.2	25 mm dia ID	Rmt	202.00	25	5050
TOTAL AMOUNT							4,45,958

PROPOSED INTERNAL ELECTRIFICATION WORKS

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs.)	Qty	Amount (Rs.)
1	2	3	4	5	6	7
4.1		Point wiring (excluding metallic switch box & sheet but including switches, sockets, lamp holders/ceiling roses etc) with 1.5sq. mm. PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5sq. mm. PVC insulated FRLS copper earth continuity conductor of green colour inside conduit, screwless connector for joints etc. as required as per specification for :-		Using modular accessories		
	4.1.1	Light point/fan points.				
	4.1.1.1	Primary short point	Each	451.00	20	9020
	4.1.1.2	Primary medium point	Each	830.00	125	103750
	4.1.1.3	Primary long point	Each	1300.00	40	52000
	4.1.2	(Light point/fan points) looping point				
	4.1.2.1	Secondary short point	Each	226.00	2	452
	4.1.2.2	Secondary medium point	Each	415.00	2	830
	4.1.2.3	Secondary long point	Each	650.00	2	1300
	4.1.3	3 Pin 6 Amp socket outlet on separate board				
	4.1.3.1	Short point	Each	574.00	7	4018
	4.1.3.2	Medium point	Each	990.00	52	51480
	4.1.3.3	Long point	Each	1515.00	13	19695
	4.1.4	Call bell/buzzer points				
	4.1.4.1	Short point	Each	455.00	1	455
	4.1.4.2	Medium point	Each	797.00	1	797
	4.1.4.3	Long point	Each	1183.00	1	1183
	4.1.5	Twin control light points				
	4.1.5.1	Short point	Each	531.00	2	1062
	4.1.5.2	Medium point	Each	948.00	2	1896
	4.1.5.3	Long point	Each	1453.00	2	2906

	4.2	Point wiring (excluding metallic switch box & sheet but including switches, sockets) for 3 pin 6 Amp. socket outlet point with 1.5sq. mm. PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size and 1.5sq. mm. PVC insulated copper earth continuity conductor of green colour inside conduit with required materials as per specification on same board.	Each	265.00	70	18550
	9.1	Point wiring (excluding metallic switch box & sheet) for 3 Pin 16 Amp. socket outlet point with 4sq. mm. PVC insulated cable FRLS with copper multi strand conductor ISI marked in concealed rigid P.V.C. conduit (HMS) ISI marked of suitable size etc. with 20/16 Amp. F.T. switch & socket/S.S. combined 20/16/6 Amp. of ISI marked and 4sq. mm. PVC insulated FRLS copper earth continuity conductor of green colour inside conduit, screwless connector for joints as per specification for :-		Using modular accessories		
	9.1.1	On separate board				
	9.1.1.1	Short point	Each	985.00	7	6895
	9.1.1.2	Medium point	Each	1749.00	48	83952
	9.1.1.3	Long point	Each	2612.00	11	28732
	9.1.1.4	Extra long-I	Each	3648.00	2	7296
	9.1.1.5	Extra long-II	Each	4771.00	2	9542
	9.1.1.6	Extra long-III	Each	5986.00	2	11972
	9.2	Same board switch & socket 16 Amp./S.S. combined 20/16/6 Amp	Each	437.00	6	2622
	16.1	Supply and fixing PVC conduits required confirming to IS 9537 (Part-3), ISI marked along with the accessories in concealed system etc. as required.				
	16.1.1	PVC. conduit 20 mm (HMS)	Metre	61.00	20	1220
	16.1.2	PVC. conduit 25 mm (HMS)	Metre	74.00	280	20720
	16.1.3	PVC. conduit 32 mm (HMS)	Metre	115.00	70	8050

18.2		Supplying and fixing of approved make modular type G.I. metal box 1.2mm minimum thick and depth 50mm for single row boxes and 60mm depth for two/three row boxes earth terminal stud with nut and washer with modular base and cover plate including fixing in concealed etc. as required for:-				
	18.2.1	1Or 2 Module metal box	Each	182.00	16	2912
	18.2.2	3 Module metal box	Each	216.00	12	2592
	18.2.3	4 Module metal box	Each	244.00	6	1464
	18.2.4	6 Module metal box	Each	309.00	70	21630
	18.2.5	8/9 Module metal box	Each	373.00	6	2238
	18.2.6	12 Module metal box	Each	502.00	20	10040
	18.2.7	16 Module metal box	Each	585.00	1	585
18.3		Supplying and fixing of approved make modular type PVC box minimum depth 40mm and minimum thickness 2mm with modular base and cover plate including fixing on surface etc. as required for:-				
	18.3.1	1 Or 2 Module PVC box	Each	155.00	16	2480
	18.3.2	3 Module PVC box	Each	177.00	12	2124
	18.3.3	4 Module PVC box	Each	210.00	6	1260
	18.3.4	6 Module PVC box	Each	254.00	70	17780
	18.3.5	8/9 Module PVC box	Each	314.00	6	1884
	18.3.6	12 Module PVC box	Each	402.00	20	8040
	18.3.7	16 Module PVC box	Each	442.00	1	442
23.1		Wiring for sub-mains with PVC insulated cable FRLS with copper multi strand conductor ISI marked in recessed/concealed rigid PVC conduit (HMS) ISI marked of suitable size (conduit included) including 2mm thick accessories, connection etc, as required as per specification. (Refer General Notes for Classification of Conduit Wiring Point No.10)				
	23.1.2	3 Wire sub main				
	23.1.2.1	2.5 sq. mm. cable	Metre	205.00	450	92250
	23.1.2.2	4.0 sq. mm. cable	Metre	254.00	160	40640
	23.1.2.3	6.0 sq. mm. cable	Metre	321.00	10	3210
	23.1.2.4	10.0 sq. mm. cable	Metre	457.00	10	4570
	23.1.4	4 Wire sub main				
	23.1.4.1	2.5 sq. mm. cable	Metre	235.00	10	2350
	23.1.4.2	4.0 sq. mm. cable	Metre	295.00	10	2950
	23.1.4.3	6.0 sq. mm. cable	Metre	398.00	120	47760
	23.1.4.4	10.0 sq. mm. cable	Metre	601.00	35	21035

27.5		Supplying of ISI marked and approved make of moulded case circuit breaker (MCCB) suitable for 3 phase & N, 4 pole, 50 Hz, 415 Volts, (Ics=100%Icu) AC supply with microprocessor release with inbuilt instantaneous protection & variable trip class 7.2 Ir & 6 Ir having respective breaking capacity (KA) at 415 Volts cited against their range standard conforming to IS/IEC 60947-2				
	27.5.3	MCCB 25kA current rating - 250 Amps 4 Pole & micro-processor release, over load 40% -100% x In. & short circuit 1.5 - 8 x Ir. adjustable	Each	38922.00	1	38922
	27.5.4	MCCB 36kA current rating - 40 & 100 Amps 4 Pole & Micro-Processor Release, over load 40% -100% x In. & short circuit 1.5 - 8 x Ir. adjustable	Each	20196.00	6	121176
27.8		Supply of ISI marked and accepted standard of miniature circuit breaker (MCB) of 'C' series with short circuit indication, suitable for 240/415 Volts, 50 Cycle, 10 kA/15 kA Value AC supply conforming to IS : 8828 : 1996, IEC : 60898 :2002 & 60947-2 but without enclosures :-				
	27.8.1	Single pole				
	27.8.1.1	MCB SP 0.5Amp to 5Amp 10kA rating	Each	439.00	2	878
	27.8.1.2	MCB SP 6Amp to 32Amp 10kA rating	Each	263.00	48	12624
	27.8.1.3	MCB SP For 40Amp 10kA rating	Each	611.00	2	1222
	27.8.2	Double pole				
	27.8.2.2	MCB DP 6Amp to 32Amp 10kA rating	Each	887.00	36	31932
	27.8.2.3	MCB DP For 40Amp 10kA rating	Each	1329.00	3	3987
	27.8.2.4	MCB DP 50Amp to 63Amp 10kA rating	Each	1478.00	3	4434
	27.8.4	Four pole				
	27.8.4.2	MCB FP 6Amp to 32Amp 10kA rating	Each	1965.00	2	3930
	27.8.4.3	MCB FP For 40Amp 10kA rating	Each	2714.00	1	2714
	27.8.4.4	MCB FP 50Amp to 63 Amp 10kA rating	Each	2795.00	1	2795
	27.8.4.5	MCB FP 80Amp 15kA rating	Each	10806.00	1	10806
27.11		Supply of approved make powder coated sheet steel encloser SPN MCB DB inclusive of busbar, neutral bar, earth bar, connection copper wire not less than 16 sq.mm & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator)-				
	27.11.3	4 Way double door IP 43 protection	Each	1699.00	1	1699
	27.11.4	6 Way double door IP 43 protection	Each	1846.00	15	27690
	27.11.5	8 Way double door IP 43 protection	Each	2127.00	1	2127

	27.11.6	12 Way double door IP 43 protection	Each	2738.00	1	2738
	27.11.7	16 Way double door IP 43 protection	Each	3415.00	1	3415
27.12		Supplying of approved make TPN MCB DB metal double door IP 43 protection with provision for FP MCB/ Isolator/ RCCB/ RCBO as incomer and SP MCBs as outgoing inclusive of busbar, neutral bar, earth bar, connection copper wire not less than 16 sq.mm & two earth terminals etc. complete as per IS:13032(exclusive of MCB & isolator):				
	27.12.2	4 Way (8+12)	Each	4444.00	0	0
	27.12.3	6 Way (8+18)	Each	5526.00	0	0
	27.12.4	8 Way (8+24)	Each	6716.00	1	6716
	27.12.5	12 Way (8+36)	Each	9519.00	1	9519
27.21		Supplying and installing of RCBOs (Residual current circuit breaker with overload and short circuit protection) ISI marked complete as per I.S. standard conforming to IEC:61009-1 & IS:12640-2, 240/415V 50 Hz with 10 kA short circuit withstand capacity for earth leakage, overload & short circuit protection including connection in existing enclosure in approved manner as per specification.				
	27.21.1	DP (4 module)				
	27.21.1.2	2 pole 32Amp, 30mA sensitivity	Each	4586.00	6	27516
	27.21.1.3	2 pole 40Amp, 30mA sensitivity	Each	5010.00	3	15030
	27.21.1.4	2 pole 63Amp, 30mA sensitivity	Each	6372.00	6	38232
	27.21.2	FP (8module)				
	27.21.2.6	4 pole 25-32Amp, 100/300mA sensitivity	Each	6476.00	4	25904
27.22		Supplying and installing of SPDs (surge protection device) ISI marked complete as per I.S. standard conforming to IEC:61543 - 11 for direct & indirect lightning surges protection type 2 maximum discharge current (Imax) up to 70kA & type 1+2 (Imax) up to 100KA including connection in existing enclosure in approved manner as per specification.				
	27.22.5	Type 1+2 : 50kA, 1P+N protection against direct & indirect lightning surges	Each	9561.00	1	9561
28.5		Labour charges for fixing sheet steel enclosure, MCB DB surface mounting type, as per accepted practice on 25x5mm flat iron clamp duly embedded in wall, cable connection etc. complete.				
		For item no :-				

	28.5.1	27.11.1 to 27.11.4	Each	517.00	16	8272
	28.5.2	27.11.5 & 27.12.1 to 27.12.2	Each	545.00	3	1635
	28.5.3	27.12.3 to 27.12.4 & 27.13.1	Each	572.00	2	1144
28.6		Labour charges for fixing sheet steel enclosures, MCB DB surface mounting type, as per accepted practice on 25x25x 5 mm angle iron clamp, including supplying and fixing of clamp duly embedded in wall, cable connection etc. complete :-				
		For item no :-				
	28.6.1	27.11.6 & 27.11.7; 27.12.5 ; 27.13.2 to 27.13.4 & 27.14.1 to 27.14.4 ; 27.15.1 to 27.15.4	Each	414.00	2	828
28.7		Labour charges for fixing sheet steel enclosures, MCCB DB surface mounting type, as per accepted practice on 35x35x 5 mm angle iron clamp, including supplying and fixing of clamp duly embedded in wall, cable connection etc. complete :-				
	28.7.1	27.16.1 & 27.16.2 ; 27.16.5 & 27.16.6	Each	3100.00	1	3100
	28.7.2	27.16.3 & 27.16.4 ; 27.16.7 to 27.16.9, 27.16.12, 27.16.13	Each	3318.00	1	3318
	28.7.3	27.16.10 to 27.16.11	Each	3991.00	1	3991
28.8		Labour charges for fixing sheet steel enclosures, MCB/MCCBDB flush mounting type, as per accepted practice, duly embedded and end plate completely flushed in wall, cable connection etc. complete :-				
		For item no :-				
	28.8.1	27.11.1 to 27.11.7 ; 27.12.1 to 27.12.3 & 27.13.1	Each	268.00	1	268
	28.8.2	27.12.4 & 27.12.5 ; 27.13.2 to 27.13.4 ; 27.14.1 to 27.14.4 & 27.15.1 to 27.15.4	Each	297.00	1	297
	28.8.3	27.16.1 & 27.16.2 ; 27.16.5 & 27.16.6	Each	2788.00	1	2788
	28.8.4	27.16.3 & 27.16.4 ; 27.16.7 to 27.16.9, 27.16.12, 27.16.13	Each	3527.00	1	3527
	28.8.5	27.16.10 to 27.16.11	Each	3532.00	1	3532
29.2		Supply and fixing as per specification polycarbonate batten holder/angle holder of approved make with necessary materials complete	Each	29.00	42	1218
29.3		Supply and fixing as per specification call bell/buzzer of approved make with necessary materials complete.				
	29.3.3	Ding dong bell	Each	185.00	1	185
	29.3.4	Multi sound bell	Each	205.00	1	205
	29.3.5	Remote/cordless bell	Each	969.00	1	969

29.4		Supply and fixing as per specification modular call bell indicator 230Volt A.C. including reset and buzzer of approved make with necessary materials complete.				
	29.4.1	Bell indicator with reset(1 Module) 250Volt	Each	177.00	1	177
	29.4.2	Buzzer modular (2 Module)	Each	209.00	1	209
29.7		Supply and fixing in position LED lamp of approved make				
	29.7.4	7 Watt250Volt	Each	108.00	1	108
	29.7.5	9 Watt250Volt	Each	110.00	1	110
	29.7.6	12 Watt250Volt	Each	191.00	42	8022
	29.7.7	15 Watt250Volt	Each	223.00	1	223
	29.7.8	18 Watt250Volt	Each	303.00	1	303
29.8		Supply and fixing of rechargeable inverter LED Bulb, reduces to 40-50% (emergency application) with Lithium Ion battery 2600mAh, backup upto 5 hrs. having color temp upto 6500K, IP-20 rating, THD (Total harmonic distortion) <20%				
	29.8.1	7W, Rechargeable Inverter LED Bulb	Each	622.00	0	0
	29.8.2	9W, Rechargeable Inverter LED Bulb	Each	676.00	4	2704
	29.9.8	Blank plate 1 module	Each	14.00	15	210
	29.9.9	Surface switch 6Amp	Each	24.00	1	24
29.11		Supply and fixing as per specification 6Amp 250Volt bell push switch of approved make ISI marked with necessary material complete.				
	29.11.1	6/10Amp SP 250 Volt modular switch bell push	Each	78.00	1	78
	29.11.2	Flush type bell push	Each	32.00	1	32
	29.11.3	Surface bell push 6A	Each	41.00	1	41
29.13		Supply and fixing as per specification polycarbonate ceiling rose 3 plate of approved make ISI marked with necessary material complete.	Each	37.00	10	370
29.15		Supply and fixing as per specification caution/danger board of approved make with necessary material complete.				
	29.15.1	Small size 200 X 150 mm for MV/LT	Each	97.00	4	388
	29.15.2	Large size 250 X 200 mm for	Each	155.00	4	620
29.25		Supply and fixing of approved make step type modular electronic fan regulator including connection etc. as required on existing board				
	29.25.2	100 Watt(2 module)	Each	484.00	52	25168

29.27		Supply, fixing, testing & commissioning wall/floor mounted LT panel primer coated with powder coated paint & provided with required gasket for dust/vermin proof with degree of protection IP42 suitable for 415Volt 3 phase, 50 Hz, 4 wire system fabricated out of CRCA sheet upto 2 mm thick (1.6 mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere Metre, Volt Metre, selector switches, frequency Metre, phase indicating lamp, Energy Metre complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted changeover switch/SFUs, etc. as required but excluding cost of busbar strips, Ampere Metre, Volt Metre, selector switch as per approved design & specification	Kg	397.00	55	21835
29.28		Supply and fixing of LT panel accessories of approved make in existing LT panel including connections etc. as required as per specification.				0
	29.28.1	Digital Ampere Metre with CTs with selector switch	P.SET	2125.00	1	2125
	29.28.2	Digital Volt Metre with selector switch & HRC fuse	P.SET	2398.00	1	2398
	29.28.3	Frequency Metre	Each	1435.00	1	1435
	29.28.4	Multifunction Meter	Each	2587.00	1	2587
	29.28.5	Copper bus bar strips with PVC sleeves	Kg	788.00	2	1576
	29.28.6	Aluminium bus bar strips with PVC sleeves	Kg	284.00	28	7952
	29.28.7	LED lamp indicator	Each	255.00	6	1530
30.1		Supplying, erection and testing of approved make electric Ceiling fan of double ball bearing complete with standard down rod, canopy, hanging shackle, Aluminium blades, without regulator, A.C. 230-250 volts including connections with all necessary material complete of approved as required confirming to IS :374/2019 with upto date amendments.				
	30.1.1	Ceiling fan - 900 mm sweep	Each	1898.00	1	1898
	30.1.2	Ceiling Fan (ISI marked)-1200 mm Sweep, with minimum air delivery 210 m ³ /min and service value \geq 4.00 as per BEE..	Each	2292.00	52	119184

30.6		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.				
	30.6.1	300mm sweep RPM 900 / 1400	Each	2571.00	6	15426
	30.6.2	380mm sweep RPM 900 /1400	Each	3271.00	2	6542
	30.6.3	450mm sweep RPM 900 / 1400	Each	4259.00	1	4259
30.13		Supply and fixing M.S. down rod 14 SWG (2mm) thick for ceiling fan including threading, painting, making holes etc. as required complete. Note: For new works difference of installed & standard down rod length shall be paid.	Metre	114.00		0
	31.2.2	250 mm (10")	Each	791.00	2	1582
	31.2.3	300 mm (12")	Each	971.00	52	50492
31.3		Supply and fixing Led tube rod comprising of LED tube with non-integral/integral driver, upto 6500K color temp having 40000 burning hrs life with minimum @ L 70, system lumen output should be minimum with system efficacy > 100 lm/Watt. LED driver PF > 0.95 & THD < 20%. The colour rendering index of LED light should be more than 70. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job.				
	31.3.4	Tube light LED 1 X 20/22Watt, Integral i/c batten aluminium body, PC diffuser.	Each	782.00	78	60996
31.14		Supplying and fixing flood light with high power LED of 3 to 6 Watt each assembled on single MCPCB and additional unique peanut lens on each LED, system lumens output with efficacy > 120 lm/Watt. luminaire having color temp upto 6500K & 50000 hrs. burning life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF > 0.95 & surge protection 10KV. Housing made of pressure die cast aluminium with heat resistant flat glass, IP65 protection. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job.				
	31.14.2	30Watt, color temp 3000-6500k as required.	Each	5178.00	2	10356
	31.14.3	60Watt, color temp 3000-6500k as required.	Each	7872.00	2	15744

	31.14.4	90/100Watt, color temp 3000-6500k as required.	Each	11553.00	2	23106
	31.14.5	120Watt, color temp 3000-6500k as required.	Each	16022.00	2	32044
	31.14.6	150Watt, color temp 3000-6500k as required.	Each	21572.00	2	43144
37.3		Earthing with G.I. earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 metre long etc. (but without charcoal or coke and salt) complete as required	Each	7487.00	2	14974
37.4		Earthing with copper earth plate 600mm X 600mm X 3mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 metre long etc. (but without charcoal or coke and salt) complete as required	Each	16341.00	2	32682
37.5		Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation and refilling the pit in all type of soil, murrum	Each	1655.00	4	6620
37.11		Providing and fixing 25mm X 5mm copper strip in 40 mm dia G.I. Pipe from earth electrode as required	Metre	1490.00	20	29800
41.1		Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor				
41.1.6		Armoured 3 core				
	41.1.6.1	6 sq. mm.	Metre	112.00	250	28000
	41.1.8	3½ core armoured				
	41.1.8.7	150 sq. mm.	Metre	904.00	0	0
	41.1.8.8	185 sq. mm.	Metre	1150.00	68	78200
	41.1.8.9	240 sq. mm.	Metre	1460.00	0	0
	41.1.10	4 core armoured				
	41.1.10.1	6 sq. mm.	Metre	151.00	10	1510
	41.1.10.2	10 sq. mm.	Metre	181.00	35	6335
	41.5.1	Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, rubber ring complete erected with cable and lead connection etc. as per specification complete.				
	41.5.1.1	Gland size 22mm suitable for cable 2,3,3½ & 4 x upto 6 sq. mm	Each	79.00	32	2528
	41.5.1.2	Gland size 22mm suitable for cable 2/3, 3½, 2/4 x 10 sq. mm or 2x 16 sq. mm	Each	97.00	2	194

	41.5.1.3	Gland size 28mm for 3/4 x 16 sq. mm	Each	138.00	2	276
	41.5.1.4	Gland size 32 mm for 2/3, 3½, 4 x 25 sq. mm OR 2/3, 3½ x 35 sq. mm or 2/3/3½ x 50 sq. mm.	Each	158.00	2	316
	41.5.1.5	Gland size 38 mm 3½ x 70 sq. mm, 3x95 sq. mm	Each	219.00	2	438
	41.5.1.6	Gland size 45 mm 3/3½ x 120 sq. mm, 3½ x 95 sq. mm, 3 x 150 sq. mm.	Each	260.00	2	520
	41.5.1.7	Gland size 50 mm ,3½ x 150 sq. mm,3 x 185 sq. mm	Each	290.00	2	580
	41.5.1.8	Gland size 57 mm, 3 x 225 sq. mm, 3 ½ x 185 sq. mm	Each	440.00	2	880
41.6		Supplying and fixing ferrules as per IS - specification suitable for following size of cable for circuit identification including connection as required complete				
		For conductor size-				
	41.6.1	2.5 to 6.00 sq. mm	Each	3.00	136	408
	41.6.2	10.00 sq. mm	Each	4.00	4	16
	41.6.3	16.00 sq. mm	Each	4.00	4	16
	41.6.4	25.00 sq. mm	Each	6.00	4	24
	41.6.5	35.00 sq. mm	Each	7.00	4	28
	41.6.6	50.00 sq. mm	Each	11.00	4	44
	41.6.7	70.00 sq. mm	Each	14.00	4	56
	41.6.8	95.00 sq. mm	Each	16.00	4	64
	41.6.9	120.00 sq. mm	Each	18.00	4	72
	41.6.10	150.00 sq. mm	Each	25.00	4	100
	41.6.11	185.00 sq. mm	Each	32.00	4	128
	41.6.12	240.00 sq. mm	Each	46.00	4	184
	41.6.13	300.00 sq. mm	Each	57.00	4	228
41.7		Supplying and fixing crimping type alum. lugs as per I.S.S. specification suitable for following size of cable with alu./copper solid/stranded conductor evenly crimped with high/pressure tool and connected to switch gear/bus/M.C.C.B./M.C.B. etc. as required complete.				
		For conductor size-				
	41.7.1	6mm to 16 sq. mm	Each	8.00	136	1088
	41.7.2	25 sq. mm	Each	14.00	0	0
	41.7.3	35 sq. mm	Each	22.00	0	0
	41.7.4	50 sq. mm	Each	22.00	0	0
	41.7.5	70 sq. mm	Each	35.00	0	0
	41.7.6	95 sq. mm.	Each	48.00	0	0
	41.7.7	120 sq. mm.	Each	58.00	0	0
	41.7.8	150 sq. mm.	Each	66.00	0	0
	41.7.9	180 sq. mm	Each	76.00	2	152

	41.7.10	240 sq. mm.	Each	116.00	0	0
	41.7.11	300 sq. mm.	Each	138.00	0	0
		TOTAL AMOUNT (Rs)				18,52,934

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount(Rs.)
1	2	3	4	5	6	7
38.2		Supplying and drawing following pair, 0.5 mm PVC insulated copper conductor unarmoured telephone cable in existing surface/concealed, steel/PVC conduit as required.				
	38.2.2	Telephone wire 0.5 mm, 2 Pair	Metre	36.00	240	8640
38.3		Supply installation, testing and commissioning of 0.5 mm size solid annealed copper, jelly filled telephone cables, polythene insulated, petroleum jelly filled with poly-al laminate moisture barrier, polythene sheathed, armoured polythene jacketed telephone cables as per DOT specifications of following sizes				
	38.3.1	10 Pair	Metre	173.00	60	10380
38.4		Supply, installation testing and commissioning of telephone tag block krone connector with enclosure complete as mentioned below :-				
	38.4.1	10 Pair	each	693.00	1	693
38.6		Supply, fixing and testing of RJ 11 telephone jack modular (1 Module)	each	174.00	8	1392
38.10		Supply, installation testing and commissioning RJ - 45 computer jack cat 6 with shutter modular (2Module)	each	689.00	6	4134
38.11		Supplying and drawing 4 pair un-shielded twisted pair (UTP), 0.5 mm PVC insulated copper conductor un-armoured Cat-6 computer cable FRLS in existing surface/concealed, steel/PVC. conduit/ casing-n-capping as required	Metre	56.00	305	17080
38.13		Supply, installation testing and commissioning of patch cord as mentioned below :-				
	38.13.1	CAT 6 RJ45 patch cord UTP 1 metre	each	436.00	6	2616
38.15		Supply, installation testing and commissioning of 19" modular patch - 1 U patch panel 24, RJ 45 cat-6 connector	each	11792.00	2	23584
38.16		Supply, installation testing and commissioning of 19" modular telephone patch panel 24 - 1 U with RJ 11 connector	each	11444.00	2	22888
38.17		Supply, installation testing and commissioning of wall mounting rack, for computer switches/Patch Panel etc complete as mentioned below :-				
	38.17.1	6U cabinet with min. Dimensions 366X600X600, wall mounting with 6 point 5 Amp. socket power supply strip, and fan, cable manager. tray as per Site requirement	each	9753.00	1	9753
	38.17.2	9U cabinet with min. Dimension 488X600X600, wall mounting with 6 point 5 Amp. socket power supply strip, and fan, cable manager, tray as per Site requirement	each	13087.00	0	0

38.17.3	12U cabinet with min. Dimension 590X600X600, wall mounting with 6 point 5 Amp. socket power supply strip, and fan, cable manager. tray as per Site requirement	each	18211.00	0	0
38.18	Supply installation, testing and commissioning of floor mounting rack, base frame, top & bottom, front glass door with perforation, rear vented door, lockable & detachable side panels, 2 pairs 19" rail with depth members. fixed shelf, complete as mentioned below :-				
38.19.2.1	Supply, Installation, Commissioning of 24 Port Patch Panel loaded with Category-6A I/O shielded Jacks complying as per the ANSI/TIA-568C.2 Patch Panel, 19" Rack Mount, 1U Height, I/O should be Spring-loaded shutter to protects from dust and contaminants, Should be certified by ETL/UL	Each	25901.00	1	25901
38.19.3	CAT6 A SHIELDED TWISTED PAIR PATCH CORDS				
38.19.3.2	SITC of 2 Mtr CAT6 A SHIELDED TWISTED PAIR PATCH CORDS ETL/UL.	Each	858.00	2	1716
38.19.4					
38.19.4.1	CAT6A RJ - 45 computer socketwith shutter modular (1Module) Category-6A as per ANSI/TIA-568-C.2, I/O should be Spring-loaded shutter or cap to protects from dust and contaminants, Wire AccoSModation: 22-24 AWG solid, Should be certified by ETL/UL	Each	1199.00	8	9592
38.19.6					
38.19.7					
38.20.2	8-Port Gigabit Unmanaged Desktop Switch. Fast and Reliable Networking. 1000Base-T Interface : 8. Auto MDI/MDIX .Switching Capacity : 16 Gbps. Operation Temperature 0 ~ 40 °C. Power Input AC : 100 ~ 240 V	Each	4424.00	1	4424
43.1	Supply, installation, testing and commissioning of EPABX system consist, no. of extension, no of junction, no. of expandable eport, operating console, current on max. load with ISDN compatible of approved make and labor as required as per specifications.				
43.1.1	EPABX system consists of 16 nos. extensions, 8 nos of junction &upto 64 nos. of expandable eport, with one operating console, 1.35 Amp max. current	Each	64894.00	1	64894
43.2	Supplying & fixing float cum boost charger for EPABX system of approved make with all necessary material as required as per specifications.				
43.2.1	10 Amp 48 V float cum boost charger	Each	19316.00	1	19316
43.2.2	25 Amp 48 V float cum boost charger	Each	31701.00	0	0

	43.2.3	50 Amp 48 V float cum boost charger	Each	52170.00	0	0	
43.3		Supplying, fixing essential additional accessories to EPABX system of approved make with all necessary material as required as per specifications.					
	43.3.1	EPABX E-1 card	Each	28393.00	1	28393	
	43.3.2	R-2 TWT card	Each	14513.00	1	14513	
	43.3.3	Hot standby card	Each	19936.00	1	19936	
	43.3.4	EPABX-operator console	Each	6475.00	1	6475	
	43.3.5	EPABX system digital phone with 2 line display (32 characters) with 8 programmable keys.	Each	4264.00	1	4264	
	43.3.6	EPABX system line card to extend the number of line by 8.	Each	8965.00	1	8965	
	43.3.7	EPABX system junction card to extend the number of Index by 4.	Each	5992.00	1	5992	
	43.3.8	EPABX system junction card to extend the number of junction by 8.	Each	11643.00	1	11643	
	43.3.9	EPABX system digital line card 8 line.	Each	9015.00	1	9015	
	43.3.10	4 push button CLI phone.	Each	717.00	7	5019	
		TOTAL AMOUNT (Rs.)					341218

PROPOSED OUDOOR LIGHTING WORKS

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount(Rs.)
1	2	4	5	6	7	8
42.98		Providing and erection of hot dipped galvanized octagonal poles in single section made from 3mm thick sheet having lockable weather proof flush door junction box, suitable size & type of foundation bolts 4 nos. 'J' type (EN8 grade) complete, erected in an approved manner on provided foundation.				
	42.98.6	8 meter height, 135 X 70mm A/F, 225x225x16mm base plate having weight 70 kg ± 3%, 4 nos. X 20 x 750mm bolt having weight 8.2 kg ± 3%.	Each	13415.00	18	241470
	42.98.7	10 meter height, 175 X 70mm A/F, 275x275x16mm base plate having weight 105 kg ± 3%, 4 nos. X 24 x 750mm bolt having weight 12 kg ± 3%.	Each	17114.00	0	0
	42.98.8	11 meter height, 175 X 70mm A/F, 275x275x16mm base plate having weight 115 kg ± 3%, 4 nos. X 24 x 750mm bolt having weight 12 kg ± 3%.	Each	18587.00	0	0
31.13		Supply and fixing street light with high power LED of 3 to 6 Watt each on existing bracket assembled on single MCPCB and additional unique peanut lens on each LED, system lumens output with efficacy>120 lm/Watt. luminaire having color temp upto 6500K & 50000 hrs. burning life with minimum @ L 70, The colour rendering index of LED light should be more than 70. Luminaire comprises of driver, PF> 0.95 & surge protection 10KV. Housing made of pressure die cast aluminium with heat resistant flat glass, IP65 protection. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347 i/c connection wire, testing etc. to complete the job				
	31.13.5	150Watt, color temp 3000-6500k as required.	Each	22936.00	30	688080
42.99		Providing and fixing of bakelite sheet 10mm thick, one MCB 6Amp-32Amp SP & 16sq.mm stud type 4 way epoxy connector for decorative designer poles /octagonal pole box.	Each	323.00	40	12920
42.1		Providing and fixing of sword canopy type single arm GI bracket upto 2 meter Long for 90mm A/F top octagonal pole	Each	2071.00	6	12426
42.1		Providing and fixing of sword canopy type double arm GI bracket upto 2 meter Long for 90mm A/F top octagonal pole	Each	3496.00	12	41952

42.11		Providing and erection of black painted galvanized decorative designer poles in different section, top 60mm dia., bottom 140mm dia. with gold colour painted ornamental cast aluminium ring having lockable weather proof flush door junction box in bottom section, base plate dia. 290mm having 4 holes of 22mm dia. complete erected in an approved manner on existing foundation. Suitable size & type of foundation bolts 4 nos. X 16mm X 450mm 'J' type (EN8 grade)				
	42.107.1	3 meter Height	Each	17737.00	22	390214
	42.107.2	4 meter Height	Each	19831.00	1	19831
	42.107.3	5 meter height	Each	23654.00	1	23654
31.11		Supply and fixing integral post top lantern LED fitting comprises of copper dust finish cast aluminium spigot and spun aluminium canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting, open construction driver and accessories are wired upto terminal block. LED of 1 to 3 Watt each assembled on single MCPCB, having color temp upto 6500K & having 50000 burning hrs. life with minimum @ L 70, system lumen output should be minimum with efficacy>100lm/Watt. LED driver PF > 0.95 & surge protection 10KV. The colour rendering index of LED light should be more than 70. Submission LM 79-08/IS16106 (2012), IEC60598, IEC61347i/c connection wire, testing etc. to complete the job.				
	31.11.1	40 Watt LED, color temp 3000-6500k as required.	Each	7768.00	2	15536
27.3		Supplying of ISI marked and approved make of moulded case circuit breaker (MCCB) suitable for 3 phase & N, 4 pole, 50 Hz, 415 Volts, (Ics=100%Icu) AC supply with thermal-magnetic release having respective breaking capacity (KA) at 415 Volts cited against their range standard conforming to IS/IEC 60947-2				
	27.3.1	MCCB 25kA current rating - 63 to100Amp & adjustable overload setting 80% -100% of In, adjustable short circuit setting 6-10 In 4 Pole	Each	9781.00	2	19562.0

	29.27	Supply, fixing, testing & commissioning wall/floor mounted LT panel primer coated with powder coated paint & provided with required gasket for dust/vermin proof with degree of protection IP42 suitable for 415Volt 3 phase, 50 Hz, 4 wire system fabricated out of CRCA sheet upto 2 mm thick (1.6 mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere Metre, Volt Metre, selector switches, frequency Metre, phase indicating lamp, Energy Metre complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted changeover switch/SFUs, etc. as required but excluding cost of busbar strips, Ampere Metre, Volt Metre, selector switch as per approved design & specification	Kg	397	52	20644
	29.28	Supply and fixing of LT panel accessories of approved make in existing LT panel including connections etc. as required as per specification.				
	29.28.1	Digital Ampere Metre with CTs with selector switch	P.SET	2125.00	2	4250.0
	29.28.2	Digital Volt Metre with selector switch & HRC fuse	P.SET	2398.00	2	4796.0
	29.28.3	Frequency Metre	Each	1435.00	2	2870.0
	29.28.4	Multifunction Meter	Each	2587.00	2	5174.0
	29.28.5	Copper bus bar strips with PVC sleeves	Kg	788.00	0	0.0
	29.28.6	Aluminium bus bar strips with PVC sleeves	Kg	284.00	52	14768.0
	29.28.7	LED lamp indicator	Each	255.00	12	3060.0
52.3		Astro time switch – For lights on-off based on sunrise and sunset timing				

	52.3.1	Supply, installation, testing and commissioning of astro-time switch based on astro program i.e. calculation of sunrise and sunset times through date, time and Indian PIN codes. It shall have an option of astro ON period override by time switch and Offset function which allows programming of switching times offset from the astronomic time. The 230 V AC operated astro time switch shall have an operating range of 96...253V AC with 1 NO, 16 A, AgSnO2 contact material with starting current of 120A and 1 CO cadmium free contacts, it shall have LCD status indication with back light display along with internal easily replaceable battery on the front side for set-up and programming. The electrical life at rated load AC1 shall be 1 lakh cycles and shall work at an ambient temperature of -20 to +50 deg C. It shall have a dielectric strength between supply and open contacts of 4000V AC, between open contacts 1000V AC respectively and rated impulse voltage (between supply and contacts) of 6kV and rated impulse voltage (between open contacts) of 1.5kV. The mounting shall be on 35 mm DIN rail (EN 60715) and shall have necessary approvals like CE, IMQ and EAC.	Each	9524.00	2	19048.0
	52.6	Modular contactor for the lighting feeder panel				
	52.6.1	Supply, installation, testing and commissioning of 25A rating four pole contactor, designed specific contact material AgSnO2 for lamp loads and AC load for high starting current. It shall work at an ambient temperature of -20 to +50 deg C and auto-On-Off selector version. It shall have 3 Kv short circuit protections. The mounting shall be on 35 mm DIN rail (EN 60715)	Each	4181.00	2	8362.0
27.80		Supply of ISI marked and accepted standard of miniature circuit breaker (MCB) of 'C' series with short circuit indication, suitable for 240/415 Volts,50 Cycle, 10 kA/15 kA Value AC supply conforming to IS : 8828 : 1996, IEC : 60898 :2002 & 60947-2 but without enclosures :-				
	27.8.1	Single pole				
	27.8.1.2	MCB SP 6Amp to 32Amp 10kA rating	Each	263.00	40	10520.0
	27.8.4	For Four poles				
	27.8.4.2	MCB FP 6Amp to 32Amp 10kA rating	Each	1965.00	4	7860.0
	27.8.4	MCB FP 50Amp to 63 Amp 10kA rating	Each	2795.00	4	11180.0

	42.14	Supplying and erection of water tight terminal box made of PC-GFS (polycarbonate), IP 66 /IP 67 (cable entry systems LES) in accordance with IEC 60670-22, resistant to weather influences (UV due to solar radiation, protected against rainwater, temperature resistant, impact resistant, etc. insulation voltage 1000 V a.c./d.c., wall thickness of the bottom part 2 / 2.7 mm of required size suitable for kit kat/MCB/switch including 2 nos. pole clamp of M.S. flat iron size 32x3mm, nut and bolts, excluding the cost of the kit kat/MCB/Switch, 4 Pole epoxy connector nut & bolt type, 30Amp, 500Volt complete as per specification as mentioned below				
	42.14.1	104 x 104 x 70 mm	Each	452.00	1	452.0
	42.14.2	130 x 180 x 77 mm	Each	889.00	1	889.0
	42.14.3	155 x 210 x 92 mm	Each	1384.00	1	1384.0
42.16		Supplying and fixing of MCB/Connector mounting Corrosion proof mild steel DIN Rail of thickness 2.5mm to 4mm in existing box as required as per specification:	Per Metre	107.00	40	4280.0
42.17		Supply and fixing of single pole connector DIN Rail mounted Insulating body made from Polyamide 6.6 conforms to UL 94 standard, IEC 60947-7-1, 1000Volt in existing box as required as per specification:				
	42.17.2	Suitable for 6sqmm-16sq mm cable	Each	68.00	40	2720.0
29.60		Supply and fixing of multi core round FRLSH PVC insulated copper (flexible) conductor & PVC sheathed cables 1100Volts as per IS:694-1990 of approved make				
	29.6.4	(50/0.25 mm) Three core 2.5 sq.mm.	Metre	86.00	1250	107500.0
41.10		Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor				
	41.1.10	4 core armoured				
	41.1.10.2	10 sq. mm.	Metre	181.00	1150	208150.0
	41.1.10.3	16 sq. mm.	Metre	218.00	230	50140.0
	41.5.1	Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, rubber ring complete erected with cable and lead connection etc. as per specification complete.				
	41.5.1.2	Gland size 22mm suitable for cable 2/3, 3½, 2/4 x 10 sq. mm or 2x 16 sq. mm	Each	97.00	80	7760.0
	41.5.1.3	Gland size 28mm for 3/4 x 16 sq. mm	Each	138.00	6	828.0

	41.70	Supplying and fixing crimping type alum. lugs as per I.S.S. specification suitable for following size of cable with alu./copper solid/stranded conductor evenly crimped with high/pressure tool and connected to switch gear/bus/M.C.C.B./M.C.B. etc. as required complete.				
	41.7.1	6mm to 16 sq. mm	Each	8.00	220	1760.0
	41.14	Supplying and installing double wall corrugated pipes (DWC) of HDPE (IS 14930 Part II -marked) for cable laid underground with necessary material and at required depth upto 90cm. below road/ground surface, including excavation, back filling with excavated material, ramming and making the surface good.				
	41.14.1	50.00mm outside dia.	Metre	133	780	103740.0
	41.14.4	110.00mm outside dia.	Metre	252.00	45	11340.0
	41.14.7	210.00mm outside dia.	Metre	532.00	430	228760.0
	41.21	Laying of one number armoured / unarmoured power cable 1:1 KV grade of size not exceeding 25 sq. mm in the existing RCC hume/stone ware/G.I. pipe/surface in existing trench as required.	Metre	28.00	1380	38640.0
	42.68	Supply, laying and fixing of G.I. earth coil of 4mm dia G.I. wire having 120 turns of nearly 50mm dia. and 3 mt. long tail in existing pit duly earthed with pole etc complete as required as per specification.	Each	293.00	40	11720.0

42.95	<p>Providing and erection on existing foundation 12.5 meter highmast lighting system suitable to install 6 No. 2x400wM.H/S.V/LED flood light fitting and control gear with integral Power tool, weight 340kg. comprising of 2 section of hot dipped galvanized materials as per BSENISO1461 thickness 3 mm, dia 100mm & 360 mm for top and bottom respectively, stress fitting arrangement on site with 350 mm over lap</p> <p>dynamic loading to withstand max wind pressure as per IS875 part III, parameters for structural & foundation design must be taken from wind tunnel test. Lightning protection of GI single spike 800mm at top and at base inside compartment with double internal lock with adequate size of MCB erected on PVC board complete with base plate of 25mm thick 520mm dia. and foundation bolts having 4 nos. bolts of 24mm dia, 750mm long (EN8 grade), Anchor plate 445 PCD, including accessories viz. (1) Lantern carriage of 50NBERW class-B, MS pipe covered with PVC sleeve suitable to carry 250kg. load and upto 6 fittings symmetrically. (2) Trailing copper cable 5x2.5sq.mm, EPR insulated PCP sheathed. (3) Double drum/350kg winch having gear 53:1 oil bath (SAE90/140) arrangement. (4) 2 nos.</p>	Each	205322	0	0.0
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42.96	<p>Providing and erection on existing foundation 16 meter high mast lighting system suitable to install upto 8 No. 2x 250/ 400w M.H/S.V/LED flood light and control gear with integral power tool, weight 450kg. comprising of 2 sections of hot dipped galvanized materials as per BSEN ISO 1461 thickness 3mm & 4mm, dia 150mm & 360mm for top and bottom respectively, stress fitting arrangement on site with 500mm overlap dynamic loading to withstand max wind pressure as per IS 875 part III, parameters for structural & foundation design must be taken from wind tunnel test. Lightning protection of GI single spike 1200mm at top and at base inside compartment having double internal lock with adequate size of MCB erected on PVC board complete with base plate of 25mm thick 520mm dia. and foundation bolt having 6 nos. bolt of 24mm dia 750mm long (EN.8 grade) anchor plate 445 PCD, including accessories viz.</p> <p>(1) Lantern carriage of 50NB ERW class-B, MS pipe covered with PVC sleeve suitable to carry 500kg. load and</p>	Each	266303	1	266303.0
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42.97	<p>Providing and erection on existing foundation 20 meter high mast lighting systems suitable to install upto 10 No. 2 x 250/ 400w M.H/S.V/LED flood light and control gear with integral Power tool, weight 450kg. comprising of 2 sections of hot dipped galvanized materials as per BSEN ISO 1461 thickness 3mm & 4 mm, dia 150mm & 410mm for top and bottom respectively, stress fitting arrangement on site with 500mm overlap dynamic loading to withstand max wind pressure as per IS 875 part III, parameters for structural & foundation design must be taken from wind tunnel test. Lightning protection of GI single spike 1200mm at top and at base inside compartment having double thickness 3mm & 4mm, dia 150mm & 410mm for top and bottom respectively, stress fitting arrangement on site with 500mm overlap dynamic loading to withstand max wind pressure as per IS 875 part III, parameters for structural & foundation design must be taken from wind tunnel test. Lightning protection of GI single spike 1200mm at top and at base inside compartment having double internal lock with adequate size of MCB erected on PVC board complete with base plate of 25mm thick 570mm dia. and foundation bolts having 8 nos. bolts of 30mm dia 850mm long (EN. 8 grade) Anchor plate 490PCD, including accessories viz.</p> <p>(1) Lantern carriage of 50N BERW class-B, MS pipe covered with PVC sleeves suitable to carry 500kg load.</p>	Each	372547	0	0.0
42.11	<p>Designing & casting of open raft shallow footing foundation with M-20 cement concrete suitable for 12.5 meter High Mast considering the safe soil bearing capacity at site as 10 T/sqm at 2 meter depth including excavation, foundation nut bolts in an approved manner as per manufacturer drawing or Engineer-in-charge.</p>	Each	33771.00	0	0.0
42.11	<p>Designing & casting of open raft shallow footing foundation with M-20 cement concrete suitable for 16 meter high mast considering the safe soil bearing capacity at site as 10 T/sqm at 2 meter depth including excavation, foundation nut bolts in an approved manner as per manufacturer drawing or engineer-in-charge.</p>	Each	41931.00	1	41931.0
42.11	<p>Designing & casting of open raft shallow footing foundation with M-20 cement concrete suitable for 20 meter high mast considering the safe soil bearing capacity at site as 10 T/sqm at 2 meter depth including excavation, foundation nut bolts in an approved manner as per manufacturer drawing or engineer-in-charge.</p>	Each	42707.00	0	0.0
34.4	Painting of poles				

37.3	Earthing with G.I. earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 metre long etc. (but without charcoal or coke and salt) complete as required	Each	7487.00	2	14974
37.5	Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation and refilling the pit in all type of soil, murrum	Each	1655.00	2	3310
37.9	Supply and laying 25mm X 5mm G.I. strip at 0.5 metre below ground level as strip earth electrode including jointing etc. as required.	Metre	130.00	30	3900
TOTAL AMOUNT (Rs.)					2688658

PROPOSED TRANSFORMER & RELATED WORKS

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount(Rs.)
1	2	3	4	5	6	7
42.2		Supply of support for overhead line RS joist of I.S. standard including drilling of required hole etc. complete as required.				
	42.2.6	H - Beam 152x152mm, Std weight 37.1 Kg/Mtr	Metre	2843.00	90	255870
47.2		Supplying, drawing and testing of XLPE insulated covered aluminium conductor of approved make, stringing, making off complete with binding at existing insulator, jointing, jumpering, tearing off, connecting etc. as required and clearing of obstacles (if any) etc.				
	42.7.1	70 Sqmm XLPE 11KV grade	Km.	119836.00	0.5	59918
42.20		Erection of RS Joist pole/'H' beam/steel tubular/steel rail pole of length exceeding 10 metres but not exceeding 15 metres in cement concrete M-10 (1 cement:3 core sand: 6 graded stone aggregate 40mm nominal size) base, foundation, muffing including excavation and back refilling etc. as required.	Each	5289.00	6	31734
42.26		Supplying and erection of stay set complete (galvanized) 19mm. dia x 1.8 metre long stay rod anchor plate of size 300 mm x 300 mm x7.5mm thimble stay clamp, turn buckle (19mm dia x 600mm), 7/4.00mm dia G.I. stay wire etc. in cement concrete M-10 (1 Cement: 3 Coarse sand: 6 graded stone aggregate 40mm nominal size) foundation including excavation and refilling etc. as required.	Each	4600.00	2	9200
42.35		Supplying and erection of 50mm x 65mm shackle insulator with G.I. bolts, nuts and straps etc. as required.	Each	92.00	12	1104
42.42		Supply, fabrication and erection of angle/channel/flat iron fitting for overhead line & sub-station etc such as 'D' bracket, cross arms, top clamp, 'V' cross arms, back/support clamp or other similar work etc. including nut bolts of required size, making holes, fabrication, welding, cutting, etc. and painting with one coat of red oxide paint & two coat of aluminium paint as required as per specification	Kg.	105.00	260	27300

42.43		Labour charges for erection of angle/channel/flat iron fitting for overhead line & sub-station etc such as 'D' bracket, cross arms, top clamp, 'V' cross arms, back/support clamp or other similar work etc. including nut bolts of required size, as required as per specification.	Kg.	23.00	260	5980
42.44		Supplying and erection of 11KV porcelain pin insulator complete with long steel head G.I. pin, nut, washer etc. as required.	Each	375.00	6	2250
42.45		Supplying and erection of 11KV porcelain disc insulator for 11KV overhead lines with galvanized insulator fittings, ball and socket type, and complete with galvanized strain clamp, bolts, nuts washer etc. as required.	Each	750.00	6	4500
42.49		Labour for erection of 11/33KV porcelain pin insulator complete with hardware as required.	Each	169.00	6	1014
42.50		Labour for erection of 11KV porcelain disc insulator for 11KV overhead lines complete with hardware as required.	Each	169.00	6	1014
42.52		Supplying and erection of 11KV (5 KN) polymer pin insulator complete with long steel head G.I. pin, nut, washer etc. as required.	Each	402.00	6	2412
42.60		Supplying and erection of single piece nonlinear resistor polymer type lighting arrestor (set of 3 nos) for 3 wire, 11KV overhead lines/sub-station with rated voltage of 9KV (rms) with a nominal discharge current rating of 10 KA and complete with galvanized clamping arrangement, G.I. bolts, nuts, washer etc. as required.	Set	3617.00	1	3617
42.62		Supplying installing, testing & commissioning of outdoor H.T., AB switch assembly set gang operated with brass contact parts, including required GI pipe operating rod, handle & locking arrangement on On-Off position conforming to IS complete with required material and installing on existing DP structure to complete the job as required as per specification.(Set of 3 nos.)		0.00		0
	42.62.1	11 KV, 400Amp	set	8989.00	1	8989
42.63		Supplying installing, testing & commissioning D.O. fuse assembly with brass part contact for 33 or 11/0.4 KV DP Structure set of 3 Nos. with fuse barrel i/c required fuse element & other materials as per specification on existing D.P. structure as required.				0
	42.63.1	11KV	set	4721.00	0	0
42.67		Supply & fixing anti climbing device with 2 ply G.I. barbed wire 1 Kg. per pole complete as per MPMKVVCO. Specification.	Each	231.00	6	1386

42.68		Supply, laying and fixing of G.I. earth coil of 4mm dia G.I. wire having 120 turns of nearly 50mm dia. and 3 mt. long tail in existing pit duly earthed with pole etc complete as required as per specification.	Each	293.00	6	1758
42.69		Supplying and fixing 33/11/0.4 KV enamel coated danger board size 200x250mm with clamp on existing HT/LT structure/poles.	Each	205.00	6	1230
42.70		Supplying, installing, testing and commissioning of 33/0.4 KV 3 Phase 50 cycle oil immersed, naturally cooled, outdoor type transformer connected delta on H.T. side and star on L.T. side, hand operated off load Tap changer switch above 100 KVA, rating and diagram plate, two earthing terminal, lifting lugs, oil level gauge, drain valve with plug, temperature not exceeding 50°C on load, oil conservator with drain plug, oil filling hole with plug, dehydrating silica gel breather on eye level, four unidirectional roller, arcing horns, explosion vent, terminal arrangement bushing on H.V. side and cable box on LV side, first filling of oil upto desired level and transformer installing on existing structure with all required materials arrangement as required ISI marked & as per IS specification.				
		Energy efficiency level -2 (New level -1)				
	42.70.2	Cu. wound				
	42.70.2.1	315 KVA	Each	1096813.00	1	1096813
42.75		Supply & fixing fencing or chain link mesh 100 x 100 mm, 12 SWG GI wire for for D.P. structure electric sub-station switch yard including single post of angle iron size 50x50x5mm, 2.5 mt long should be provided upto 2.00 mt. apart or as required. The panel frame with required angle iron/ flat iron members/cross members including mesh welded in frame panel shall be erected between the posts. The angle iron post shall be erected in cement concrete M-15 (1:2:4) (20 mm graded metal) foundation, including excavation of pit and refilling the same. The fencing shall be provided with one entrance gate including locking arrangement as required as per specification. The height of fencing shall be 2 mt. above ground level. Fencing shall be painted with required shade.	sq.Mt	1821.00	50	91050
42.77		Supply of rubber mat 2 x 1.0Mtr, 1100V tested	Each	1913.00	1	1913
42.78		Supply of hand gloves 11KV tested	Each	1077.00	2	2154
42.80		Supply of fiber discharge rod I/C connection copper lead tested	Each	4042.00	1	4042

42.81		Supply of fiber D.O operating rod for 11/33KV tested	Each	3854.00	1	3854
42.82		Supply of first aid box complete with medicine & bandage as per specification.	set	1646.00	1	1646
42.83		Supply of shock instruction chart duly framed with glass, as reqd.	Each	539.00	2	1078
42.87		Designing and construction of pedestal (plinth) for transformer of desired size including excavation in hard rock/soft rock, base concrete M-7.5 (1:4:8), 20mm metal and pedestal of RCC M-15 (1:2:4) including required tar steel reinforcement for required height as per IE rules from base concrete including shuttering and finishing with 10mm thick plaster in cement mortar 1:3 curing & white washing etc. complete as per specifications	Cu. Mt.	7379.00	5	36895
42.88		Collection and spreading of metal dust, murum and 40mm graded hard metal in sub-station yard or as required as mentioned below -				
	42.88.1	Metal dust	Cu. Mt.	1274.00	5	6370
	42.88.2	Murum	Cu. Mt.	847.00	5	4235
42.122		Supplying, installation, testing and commissioning of triple pole outdoor type 11KV/33KV vacuum circuit breaker with outdoor control & relay panel with numerical static relay for feeder protection (1F). The installation of VCB shall be carried out in accordance with IS: 3072. The VCB shall be mounted on suitable size duly painted MS channel/angle iron structure with nut bolts and washer. The structure shall be fixed on existing cement concrete foundation. The complete work should be done as per IS specification.				
	42.122.1	11 KV 630A VCB	Each	190130.00	1	190130
	42.117	Supply, installation, testing & commissioning of HT trivector energy meter, 3 phase 4 wire, 110 Volts, 5 Amp, accuracy class 0.5S with GSM (GPRS compatible) intelligent modem for consumer (store N forward type) suitable for required C.T. including uPVC box/sheet metal box with TTB duly tested from electricity board.	Each	21686.00	1	21686

	29.27	Supply, fixing, testing & commissioning wall/floor mounted LT panel primer coated with powder coated paint & provided with required gasket for dust/vermin proof with degree of protection IP42 suitable for 415Volt 3 phase, 50 Hz, 4 wire system fabricated out of CRCA sheet upto 2 mm thick (1.6 mm for doors) duly compartmentalized for incomer, bus section, outgoing, cable alleys & CT, PT Ampere Metre, Volt Metre, selector switches, frequency Metre, phase indicating lamp, Energy Metre complete including cost of busbar supports, detachable cable gland plates, 2 earthing terminals, internal wiring & fixing of separately supplied MCBs, MCCBs, ACB, panel mounted changeover switch/SFUs, etc. as required but excluding cost of busbar strips, Ampere Metre, Volt Metre, selector switch as per approved design & specification	Kg	397.00	210	83370
29.28		Supply and fixing of LT panel accessories of approved make in existing LT panel including connections etc. as required as per specification.				
	29.28.1	Digital Ampere Metre with CTs with selector switch	P.SET	2125.00	1	2125
	29.28.2	Digital Volt Metre with selector switch & HRC fuse	P.SET	2398.00	1	2398
	29.28.3	Frequency Metre	Each	1435.00	1	1435
	29.28.4	Multifunction Meter	Each	2587.00	1	2587
	29.28.5	Copper bus bar strips with PVC sleeves	Kg	788.00	20	15760
	29.28.6	Aluminium bus bar strips with PVC sleeves	Kg	284.00	90	25560
	29.28.7	LED lamp indicator	Each	255.00	12	3060
29.29		Supplying and fixing of capacitor duty contactor of approved make in existing power factor/LT panel including connections etc.as required as per specification.				
	29.29.1	Upto 3 kVAR 440V,3Ph,50Hz, Aux contact-INO	Each	1431.00	3	4293
	29.29.2	For 5 kVAR 440V,3Ph,50Hz, Aux contact-INO	Each	1495.00	3	4485
	29.29.8	For 25 KVAR 440V,3Ph,50Hz, Aux contact-INO	Each	3261.00	6	19566
29.30		Supplying and fixing of APFC relay 1A/5 A site selectable, measurement of individual current and voltage harmonic (THD), capacitor failure indication, In-built temperature sensor of approved make in existing power factor Panel including connections etc. as required as per specification as mentioned below :				
	29.30.2	Automatic power factor relay 12 Steps 230V 144 x 144mm	Each	17505.00	1	17505

29.19		Supply and fixing of MPP - H heavy duty capacitor 415 Volt, 3 Ph., peak inrush current upto 250 x In, over current upto 1.8 x In(normal current), operating losses total not more than 0.35 W/kVAR, switching 8000 operation/year, as per IS:13340-1993, IS:13341-1992 of approved make as required as per specification				
	29.19.1	1 to 4 kVAR bank	Per kVAR	309.00	3	927
	29.19.2	5 to 25 kVAR bank	Per kVAR	325.00	9	2925
25.6		Supply of ISI Marked Automatic Transfer Switches (ATS) conforming to IEC : 60947-1 & IEC : 60947-6-1 with automatic inbuilt time delay 4 pole, 415 V with two earthing terminals if required.				
	25.6.3	200 Amp (open execution)	Each	55818.00	1	55818
27.5		Supplying of ISI marked and approved make of moulded case circuit breaker (MCCB) suitable for 3 phase & N, 4 pole, 50 Hz, 415 Volts, (Ics=100%Icu) AC supply with microprocessor release with inbuilt instantaneous protection & variable trip class 7.2 Ir & 6 Ir having respective breaking capacity (KA) at 415 Volts cited against their range standard conforming to IS/IEC 60947-2				
	27.5.1	MCCB 25kA current rating - 40 & 100 Amps 4 Pole & micro-processor release, over load 40% -100% x In. & short circuit 1.5 - 8 x Ir. adjustable	Each	21576.00	4	86304
	27.5.2	MCCB 25kA current rating - 160 Amps 4 Pole & micro-processor release, over load 40% - 100% x In. & short circuit 1.5 - 8 x Ir. adjustable	Each	26273.00	2	52546
	27.5.3	MCCB 25kA current rating - 250 Amps 4 Pole & micro-processor release, over load 40% - 100% x In. & short circuit 1.5 - 8 x Ir. adjustable	Each	38922.00	2	77844
	27.5.7	MCCB 36kA current rating - 400 Amps 4 Pole & micro-processor release, over load 40% - 100% x In. & short circuit 1.5 - 8 x Ir. adjustable	Each	47659.00	2	95318
	27.5.8	MCCB 36kA current rating - 630 Amps 4 Pole & micro-processor release, over load 40% - 100% x In. & short circuit 1.5 - 8 x Ir. Adjustable.	Each	70459.00	2	140918
		Supply of ISI marked and accepted standard of miniature circuit breaker (MCB) of 'C' series with short circuit indication, suitable for 240/415 Volts, 50 Cycle, 10 kA/15 kA Value AC supply conforming to IS : 8828 : 1996, IEC : 60898 :2002 & 60947-2 but without enclosures :-				
27.8		Single pole				

	27.8.1	MCB SP 0.5Amp to 5Amp 10kA rating	Each	439.00	6	2634
	27.8.1.1	MCB SP 6Amp to 32Amp 10kA rating	Each	263.00	6	1578
	27.8.1.3	Double pole				
	27.8.2.1	MCB DP 6Amp to 32Amp 10kA rating	Each	887.00	4	3548
	27.8.2.2	MCB DP For 40Amp 10kA rating	Each	1329.00	4	5316
	27.8.2.3	MCB DP 50Amp to 63Amp 10kA rating	Each	1478.00	2	2956
	27.8.2.4	Four pole				
	27.8.4.1	MCB FP 6Amp to 32Amp 10kA rating	Each	1965.00	6	11790
	27.8.4.2	MCB FP For 40Amp 10kA rating	Each	2714.00	6	16284
	27.8.4.3	MCB FP 50Amp to 63 Amp 10kA rating	Each	2795.00	6	16770
27.22		Supplying and installing of SPDs (surge protection device) ISI marked complete as per I.S. standard conforming to IEC:61543 - 11 for direct & indirect lightning surges protection type 2 maximum discharge current (Imax) up to 70kA & type 1+2 (Imax) up to 100KA including connection in existing enclosure in approved manner as per specification.				
	27.22.5	Type 1+2 : 50kA, 1P+N protection against direct & indirect lightning surges	Each	9561.00	2	19122
37.3		Earthing with G.I. earth plate 600mm X 600mm X 6mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 metre long etc. (but without charcoal or coke and salt) complete as required	Each	7487.00	8	59896
37.4		Earthing with copper earth plate 600mm X 600mm X 3mm thick including accessories and providing masonry encloser in cement mortar, cover plate having locking arrangement on the top and G.I. watering pipe 20mm dia 2.7 metre long etc. (but without charcoal or coke and salt) complete as required	Each	16341.00	4	65364
37.5		Add extra for using salt and charcoal/coke for G.I. plate or copper plate earth electrode as required including excavation and refilling the pit in all type of soil, murrum	Each	1655.00	12	19860
37.6		Supply and laying 4.0mm (8 SWG) dia. G.I. wire at 0.5 metre below ground level as conductor earth electrode including jointing etc. as required.	Metre	21.00	120	2520
37.7		Supply and laying 4mm dia. copper wire at 0.5 metre below ground level as conductor earth electrode including soldering etc. as required.	Metre	114.00	10	1140
37.8		Supply and laying 4.87mm 6 SWG G.I. wire at 0.5 metre below ground level as conductor earth electrode including jointing etc. as required.	Metre	25.00	65	1625

37.9		Supply and laying 25mm X 5mm G.I. strip at 0.5 metre below ground level as strip earth electrode including jointing etc. as required.	Metre	130.00	55	7150
37.10		Supply and laying 25mm X 6mm G.I. strip at 0.5 metre below ground level/surface as strip earth electrode including jointing etc. as required.	Metre	147.00	45	6615
37.11		Providing and fixing 25mm X 5mm copper strip in 40 mm dia G.I. Pipe from earth electrode as required	Metre	1490.00	6	8940
41.1		Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor				
	41.1.8	3½ core armoured				
	41.1.8.7	150 sq. mm.	Metre	904.00	30	27120
	41.1.8.10	300 sq. mm.	Metre	1792.00	90	161280
	41.5.1	Supplying and fixing heavy duty cable gland for P.V.C. insulated armoured cable with brass washer, rubber ring complete erected with cable and lead connection etc. as per specification complete				
	41.5.1.7	Gland size 50 mm ,3½ x 150 sq. mm,3 x 185 sq. mm	Each	290.00	4	1160
	41.5.1.9	Gland size 70 mm, 3 x 240 sq. mm, 3½ x 300 sq. mm	Each	605.00	8	4840
41.6		Supplying and fixing ferrules as per IS - specification suitable for following size of cable for circuit identification including connection as required complete				
	41.6.10	150.00 sq. mm	Each	25.00	16	400
	41.6.13	300.00 sq. mm	Each	57.00	32	1824
	41.15.9	Laying of one number armoured / unarmoured power cable 1.1 KV grade of size exceeding 120 sq. mm but not exceeding 400 sq. mm. in the existing RCC Hume /Stone ware/G.I. Pipe/ DWC Pipe/ surface in existing trench as required	Metre	54.00	120	6480
TOTAL AMOUNT (Rs.)						30,32,098

PROPOSED UPS WORKS

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount (Rs.)
1	2	3	4	5	6	7
47.1		Supply, installation, testing and commissioning of UPS with isolation transformer & battery for backup, minimum load power factor 0.8, power factor 0.99, having OVCD (over voltage cut-off device), having CVCF (constant voltage constant frequency, bypass parameters configurable, 2 stage charging (constant current/float charge), having temperature compensated charger, Fan speed control, digital signal processor controller, total harmonic distortion (current)-THDi (<10%@50% R Load, Input 1 phase voltage 230v, voltage range 110-300v, Output voltage (220AC/230AC/240AC ± 1%), Total harmonic distortion Voltage (THDv- <3% linear load, <5% nonlinear load, 90 % AC/AC efficiency, Over load capacity(105-110%: 3min, 111-130%: 30Sec), operating temperature with full load 0-40°C, communication features (RS232, USB com port, Intelligent slot(optional). UPS installation with all required material arrangements as required as per IS specification.				
	47.1.4	5 KVA (1 phase input & 1 phase output)			0	
	47.1.4.1	For 30 minute backup, min. 4000 VAH	Each	138062.00	2	276124
47.4		Supply, installation, testing and commissioning of Pure sine wave Inverter , Display Indications (Status, Fault conditions and Battery Charging) ,Standard Voltage range from 100 V~ 300 V , High Peak Current Handling Capability & High Voltage Surge Protection excluding battery and wiring for connections.				
	47.4.5	3-3.5 KVA	Each	25105.00	1	25105
47.5		Supply, installation, testing and commissioning of 12/24 V Battery system in series/parallel combinations or as single as per requirement including interconnection wiring, lugs and other required material as required with mounting stand/trolley, warranty period: Minimum 3 year				
	47.5.1	110/120 AH, Tall Tubular	Each	14691.00	0	0
	47.5.2	150/160 AH, Tall Tubular	Each	16825.00	0	0
	47.5.3	180/200 AH, Tall Tubular	Each	20125.00	4	80500
TOTAL AMOUNT (Rs.)						381729

DIESEL GENERATING SET

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount(Rs.)
1	2	3	4	5	6	7
48.1		Supply, installation, testing and commissioning of 'Silent Type' diesel generating set comprising with diesel engine water cooled, Synchronous alternator, AMF control panel single/three phase, acoustic enclosure, battery with charger and related accessories including incoming cable 10 mtr, exhaust pipe 'B' class with insulation as per CPWD specification and CPCB - IV Norms. Note:- 1. Two No Cu plate (600mmx600mmx3mm) earthing and Two No GI plate (600mmx600mmx6mm) earthing with GI/Cu Strip to be done for each installation as per specification and will be separately paid. 2. Suitable size of PCC/RCC platform to be made separately as per requirement and instruction of Enguineer-in-charge.				
	48.1.13	Supply, installation, testing and commissioning of diesel generating set three phase, water cooled with AMF control panel, 125 KVA, 415V . With electronic governor.	Each	2158580.00	1	2158580
TOTAL						2158580

PROPOSED CCTV WORKS

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount(Rs.)
1	2	4	5	6		
54.1		2 MP IP IR eyeball camera with H.264 video compression				
	54.1.1	Supply, Installation testing and commissioning of the IP dome camera shall be equipped with a 1/2.8 2 MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps) images, a 3.6 mm fixed lens, and a waterproof (IP66) enclosure. As a true day/night solution, the camera shall use smart IR technology and provide up to 98 ft (30 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.1 lux @F1.2, AGC ON, 0 lux with IR video compression :- H.264, noise reduction: 3DNR,backlight compensation :- BLC/HLC/DWDR, encode mode:- CBR/VBR (freely adjustable in CBR, 5 levels in VBR). UL	Each	10221.00	2	20442
54.2		2 MP IP IR bullet camera with H.264 Video compression		0.00		0
	54.2.1	Supply, Installation testing and commissioning of the IP bullet camera shall be equipped with a 1/2.8 2 MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps) images, a 3.6 mm fixed lens, and a waterproof (IP66) enclosure. As a true day/night solution, the camera shall use smart IR technology and provide up to 98 ft (30 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.1 lux @F1.2, AGC ON, 0 lux with IR video compression :- H.264, noise reduction: 3DNR,backlight compensation :- BLC/HLC/DWDR, encode mode:- CBR/VBR	Each	12480.00	48	599040
54.3		2 MP IP IR eyeball camera with H.265 video compression		0.00		

	54.3.1	Supply, installation testing and commissioning of the IP mini dome camera shall be equipped with a 1/3" 2 MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps) images, a 2.8 mm fixed lens, and a waterproof (IP66) enclosure. As a true day/night solution, the camera shall use smart IR technology and provide up to 98 ft (30 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.08 lux color @ F2.0 (color, 1/3s, 30 IRE),0 lux B/W with IR LEDs on @ F2.0) video compression :- H.265 +, noise reduction: 3DNR,backlight compensation :- BLC/HLC/DWDR ,UL listed	Each	15506.00	4	62024
54.4		2 MP IP IR bullet camera with H.265 video compression				
	54.4.1	Supply, installation testing and commissioning of the IP bullet camera shall be equipped with a 1/2.9" 2MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps) images, a 3.6 mm fixed lens, and a waterproof (IP66) enclosure. As a true day/night solution, the camera shall use smart IR technology and provide up to 98 ft (30 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.08 lux color @ F2.0 (Color, 1/3s, 30 IRE),0 lux B/W with IR LEDs on @ F2.0) video compression :- H.265 +, noise reduction: 3DNR,backlight compensation :- BLC/HLC/DWDR ,UL listed	Each	15868.00	6	95208
54.7		4MP IP fixed rugged dome camera				
	54.7.1	Supply, installation testing and commissioning of the IP rugged dome camera shall be equipped with a 1/3" 4 MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps)/2688 × 1520 images, a 2.8 mm fixed lens, and a waterproof (IP66) IK10 impact-resistant camera housing, as a true day/night solution, the camera shall use smart IR technology and provide up to 98 ft (30 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.08 lux color @ F2.0 (color, 1/3s, 30 IRE),0 lux B/W with IR LEDs on @ F2.0) video compression :- H.265 +, noise reduction: 3DNR,backlight compensation :- True WDR 120 DB, angle of view 104°/87° (H), 57°/48° (V) ,UL listed	Each	19553.00	2	39106
54.8		4MP IP fixed IR bullet camera		0.00		

	54.8.1	Supply, installation testing and commissioning of the IP bullet camera shall be equipped with a 1/3" 4MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps)/2688 × 1520 (20fps) images, a 3.6 mm fixed lens, and a waterproof (IP66) IK10 impact-resistant camera housing, As a true day/night solution, the camera shall use Smart IR technology and provide up to 98 ft (30 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.08 lux color @ F2.0 (Color, 1/3s, 30 IRE),0 lux B/W with IR LEDs on @ F2.0) video compression :- H.265 +, noise reduction: 3DNR,backlight compensation :- True WDR 120DB, angle of view :-104°/87° (H),	Each	19309.00	26	502034
54.9		4MP IP varifocal MFZ dome camera 2.7-13.5 MM				
	54.9.1	Supply, installation testing and commissioning of the IP rugged dome camera shall be equipped with a 1/3" 4 MP progressive scan CMOS imager to capture full HD 1080p (25/30 fps)//2688 × 1520 (20fps) images, 2.7 -13.5 mm, MFZ lens, digital zoom 16x and a waterproof (IP66) IK10 impact-resistant camera housing, As a true day/night solution, the camera shall use smart IR technology and provide up to 145 ft (45 m) of IR illumination. The camera shall accept PoE (802.3af) or 12 V DC power input. min. illumination:-0.08 lux color @ F2.0 (color, 1/3s, 30 IRE),0 lux B/W with IR LEDs on @ F2.0) video compression :- H.265 +, noise reduction: 3DNR,backlight compensation :- True WDR 120 DB, angle of view 104°/87° (H), 57°/48° (V) ,UL	Each	29009.00	4	116036
54.23		32 channel NVR with 4 SATA				
	54.23.1	Supply, installation testing and commissioning of 32 channel NVR with 1080p real-time live view H.265/H.264 MJPEG dual codec decoding Up to 12 MP resolution preview & playback max 320 MBPS incoming bandwidth support 4 SATA HDDs up to 32TB, supports fisheye video de-warping in local and web user interface, supports visual or auditory notifications(a flashing light, bell, or siren) complete with UL certification	Each	140084.00	1	140084
54.27		8 port PoE switch with 2 SFP ports				

	54.27.1	Supply, installation testing and commissioning of 8 port PoE switch with 2 SFP ports, having security features like port security supports 64 MACs per port, auto surveillance VLAN, loopback detection automatically disables a port when a loop is detected, cable diagnostics allows administrators to determine cable status, UTP cat. 5, cat. 5e (100 m max.), full/half-duplex for 10/100 MBPS, full-duplex for 1000 MBPS, auto MDI/MDIX adjustment for all twisted-pair ports, switching capacity, 40 GBPS, maximum 64 bytes packet forwarding rate, 14.88 MBPS, ports 1 to 8 compliant with 802.3at	Each	23024.00	2	46048
54.28		24 port PoE switch with 4 SFP ports				
	54.28.1	Supply, installation testing and commissioning of 24 port PoE switch with 4 SFP ports, having security features like port security supports 64 MACs per port, auto surveillance VLAN, loopback detection automatically disables a port when a loop is detected, cable diagnostics allows administrators to determine cable status, UTP Cat. 5, Cat. 5e (100 m max.), full/half-duplex for 10/100 MBPS, full-duplex for 1000 MBPS, auto MDI/MDIX adjustment for all twisted-pair ports, switching capacity, 56 GBPS, maximum 64 bytes packet forwarding rate, 41.7mbps, Ports 1 to 24 compliant with 802.3 at	Each	51329.00	1	51329
54.29		Workstation with client license		0.00		
	54.29.1	The work station shall have the following specifications:- Processor Intel @ i5 750 2.66 GHz with internal memory of 4 GB RAM. Operating system window 7professional 64-bit (WOW 64mode) or window 7 professional 32-bit NVIDIA 1 GB independent graphic card. Resolution support for cameras 2560x1600 display resolution capable and direct X true colour 32 bit. Dual link VDI outputs. Client software shall support Dual monitors each displaying 16 cameras simultaneously. A maximum of 32 cameras viewing per workstation at a time. Programmable to sequence.	Each	231656.00	1	231656
54.30		Hard disk				
	54.30.2	Providing & fixing of 4 TB hard disk	Each	10825.00	2	21650
57.2		Supply, installation, testing & commissioning of L.E.D. Television (4K L.E.D. Display O.S. Webos /Android or equivalent, minimum 50 Hz refresh rate Min. 20 W speaker, Wifi/bluetooth enabled, minimum 2 HDMI & 1USB Port, i/c remote and wall/table top accessories				

	57.2.2	42"/43"	Each	32365.00	1	32365
38.11		Supplying and drawing 4 pair un-shielded twisted pair (UTP), 0.5 mm PVC insulated copper conductor un-armoured Cat-6 computer cable FRLS in existing surface/concealed, steel/PVC. conduit/ casing-n-capping as required.	Metre	56.00	3660	204960
						2161982

PROPOSED SOLAR WATER HEATER & SLOAR POWER PLANT WORKS

Item No.	Sub Item No.	Description of Item	Unit	Rate (in Rs)	Qty	Amount(Rs.)
1	2	3	4	5	6	7
55.1		Supply, installation, testing and commissioning of evacuated tube collectors solar water heating system having water circulation natural thermo syphon suitable for inlet water with chloride hardness up to 600 ppm & TDS up to 1000 ppm comprising of evacuated tube collectors with double walled vacuum tube made from hard borosilicate glass able to resist impact from hail stone up to 30 mm in diameter, of length 1800mm having ID/OD 48/58mm, thickness 1.6mm.heavy duty HR black CGO-4 steel of 2 mm thick horizontal cylindrical hot water tank with dished end capsule shape including access doors having PUF/rock wool insulation density 42 Kg/cu. mt., 50mm thick having nonstick lining inside the tank and UV stabilized polyester precoated G.I. outer cover. Stand assembly for tank having polyester powder coated G.I. folded angles and electrical back up 2 KW. Heat loss < 0.70 W/ (m ² °C), The system should be as per latest specifications of IREDA/BIS/MNRE norms and valid test reports issued by authorized test centers confirming to MNRE guidelines for following capacities :-				
	55.1.1	Rated capacity 100 LPD, storage tank 100 Ltr	Each	39817.00	1	39817
	55.1.2	Rated capacity 200 LPD, storage tank 200 Ltr	Each	58093.00	1	58093
	55.1.3	Rated capacity 500 LPD, storage tank 500 Ltr	Each	121889.00	1	121889
55.3		Supply, installation, testing and commissioning of water pipe line of chlorinated polyvinyl chloride (CPVC) SDR - 11 grade (IS 14930 Part I marked) for mentioned below size inclusive of CPVC plain and brass threaded all necessary required fittings such as elbow, tee, union, nipple, reducer, tank nipple, FABT, MABT, solvent, labor for fixing, etc. to complete the job as per specification.				
	55.3.1	15.00 mm OD	P Mtr.	188.00	50	9400
	55.3.2	20.00 mm OD	P Mtr.	210.00	55	11550
	55.3.3	25.00 mm OD	P Mtr.	227.00	65	14755
	55.3.4	32.00 mm OD	P Mtr.	288.00	15	4320
	55.3.5	40.00 mm OD	P Mtr.	402.00	15	6030

55.4		Supply, installation, testing and commissioning of ball valve (brass) high or low pressure with plastic floats inclusive of all necessary required material, labor for mentioned below size.				
	55.4.1	15.00 mm OD	Each	583.00	3	1749
	55.4.2	20.00 mm OD	Each	714.00	3	2142
	55.4.3	25.00 mm OD	Each	906.00	3	2718
55.5		Supply, installation, testing and commissioning of gun metal gate valve with brass lever handle ISI inclusive of all necessary required material, labor for mentioned below size.				
	55.5.1	15.00 mm	Each	1102.00	3	3306
	55.5.2	20.00 mm	Each	1308.00	3	3924
	55.5.3	25.00 mm	Each	2043.00	3	6129
	55.5.4	32.00 mm	Each	2829.00	3	8487
	55.5.5	40.00 mm	Each	5753.00	3	17259
55.6		Supply, installation, testing and commissioning of CPB Bib cock inclusive of all necessary required material, labor for mentioned below size.				
	55.6.1	15.00 mm	Each	1394.00	3	4182
55.7		Supply, Installation, Testing and Commissioning of on				

	<p>grid Solar Photo voltaic Power Plant conforming to MNRE specifications as amended, consisting of Mono/Poly Crystalline silicon solar cells, net metering facility, necessary protections, earthing, mounted on Aluminium/GI structure of suitable strength with following components complete as required:-</p> <p>a) Solar Photo voltaic Module of capacity 330Wp or above, manufactured in India, conforming to IS14286/IEC61215, IS/IEC61730-Part-1, IS/IEC61730-Part-2. Solar Photovoltaic Module conversion efficiency shall not be less than 16.5%. PV modules used in solar power plants/systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.</p> <p>b) Power Conditioning Unit (PCU) of 350-800V DC Input voltage range and 400 VAC, three phase, 4 wire, 50Hz +/- 2.5Hz, output voltage suitable to generate AC Power with efficiency not less than 97%, total harmonic distortion less than 3% and suitable for ambient temperature from 0 to 50 degree C. The PCU shall adjust the voltage and frequency level to suit the Grid Voltage Frequency.</p> <p>c) Data Monitoring System complete with accessories.</p> <p>d) Fixing of Array junction box & Main junction box with IP65 protection and termination arrangement for incoming and outgoing cable along with glands, lugs and other accessories etc. as required.</p> <p>e) Lightning and surge voltage protection.</p> <p>f) Connections & Interconnections by supplying & fixing required size XLPE insulated copper conductor, 1.1kV grade armoured power and control</p>	KWp	74750.00	20	1495000
TOTAL AMOUNT					1810750